

## ABSTRACT

Title of Thesis: VOCATIONAL IDENTITY AMONG TRANSFER STUDENTS:  
A DESCRIPTIVE STUDY THE USING MY VOCATIONAL  
SITUATION INSTRUMENT

Degree Candidate: Thadtisha Andrea McCoy

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Thesis directed by: Dr. Linda Gast, Affiliate Professor  
Department of Counseling and Personnel Services

This thesis sought to determine if any differences in vocational identity (VI), as measured by the My Vocational Situation (MVS) (Holland et al., 1980) instrument, existed among transfer students entering the University of Kansas. This study measured VI of transfer students by several variables: academic classification, gender, age, ethnicity, credits earned, transferring institution, and number of times transferred. Lastly, this study developed local normative data for the transfer student population, and tested for differences between the local norms and the MVS sample norms. Data for this study was collected during a one-day orientation program attended by admitted transfer students. Responses from 253 completed surveys were used to test eight hypotheses. Statistical analyses revealed: a) female transfer students had higher VI mean scores than the MVS female college sample; b) female transfer students had higher Barriers (B) mean scores; and c) male transfer student had lower occupational information (OI) mean scores. The content of this study is important to understanding the transfer student and career development. Based on these findings, implications for practice and future research are discussed.

VOCATIONAL IDENTITY AMONG TRANSFER STUDENTS:  
A DESCRIPTIVE STUDY USING THE MY VOCATIONAL SITUATION  
INSTRUMENT

by

Thadtisha Andrea McCoy

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Advisory Committee:

Dr. Linda Gast, Affiliate Assistant Professor, Chair  
Dr. Zina Evans, Affiliate Assistant Professor  
Dr. Karen Kurotsuchi Inkelas, Assistant Professor  
Dr. Margaretha Lucas, Associate Professor



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## CHAPTER I - INTRODUCTION

They walk the sidewalks of our campuses and pay the same cost of tuition as the students they sit next to in class, yet their identity is invisible. Unlike geographic language accents, there is not one dialect that is unique to this group. Neither can their identity be determined by the pigmentation of their skin. Likewise, they cannot be distinguished from others based on age, socioeconomic status, or gender. Yet, there is one common experience that they all share which creates a culture among them, but which is not visible to those with whom they share the same campus and its resources.

The experience of transfer students often goes unnoticed and unacknowledged by four-year institutions. What we do know about this population largely focuses on their academic persistence upon transferring to the destination institution. Unlike the traditional college student population, or those that complete baccalaureate degrees within 4 to 5 consecutive years at one institution, little is known about the other facets of the transfer student. There is a great need to understand them from a holistic perspective (i.e. work habits, commuter identity, personal/familial commitments, social integration, etc.) in an effort to adapt the services of four-year institutions to ensure the success of this population. One very important aspect of the transfer student experience is the career development process, and understanding how, if at all, the transition from one institution to another affects this process.

### Background of Study

*The Student Personnel Point of View* outlines the purposes of higher education and the expectations for student affairs professionals. Among the purposes of higher education are providing programs at colleges and universities to assist students with life

transitions (American Council on Education, 1987). To achieve such purposes, it is expected that student affairs professionals will help students identify career objectives and secure gainful employment by encouraging students to explore their values and interests (American Council on Education, 1987). According to the Fall 2000 Freshman Norms Survey, 71.8% of all freshmen said it was important to attend college for the purposes of training for a specific career (Sax et al., 2000). In fact, 85% of students report that they enter college with a specific career in mind (Levine & Cureton, 1998, p. 116). The increasing trend in vocationalism has been the driving force behind the increase in the number of students enrolling in professional academic majors, such as business, computer sciences, engineering, education, and health services (Levine & Cureton, 1998).

In addition to the increase in enrollment in professional academic programs, national trends indicate that transfer behavior of undergraduate students is increasingly prevalent. Overall, forty-five percent of students who began their postsecondary education in 1989-90 had enrolled in more than one institution by 1994 (National Center for Education Statistics, 1997). Transfer students endure additional transitions compared to students native to a particular institution. Transfer students enrolling at four-year institutions for the first-time are immersed in a new culture. For students transferring from community colleges, differences in campus size, academic rigor, and academic competition among students is likely to increase compared to their previous experiences (Laanan, 2001).

## Statement of Problem

Several theorists (Parsons, 1909; Holland, 1973; Super, 1957; Ginzberg et al., 1951) have guided student affairs professionals in their efforts to assist students in their career development. Understanding how career development differs, if it does at all, for transfer students compared to non-transfer students is beyond the scope of this study. Instead, this study focused on how vocational identity differs for subgroups within the transfer student population at a large public, Research I institution in the Midwest. Specifically, this study sought to determine if there were any differences in vocational identity among transfer students based on personal demographics such as gender, age, and race/ethnicity. Further, the academic demographic information captured provided an opportunity to determine if any differences existed based on the number of credits earned, type of transferring institution, or the number of times a student has transferred institutions. Lastly, this study established local norms specifically for transfer students, as prior research had established reliabilities for the college student population as a whole, not its sub-populations (Holland et al., 1980a; Holland et al., 1980b; Lucas et al., 1988). Hence, the primary research question was:

1. In what ways, if at all, does vocational identity differ among sub-populations (i.e., academic classification, gender, age, and ethnicity) of entering transfer students at a large public, Research I institution?

Secondary questions to be addressed were:

2. Does the number of credits earned by a transfer student affect his/her vocational identity?

3. What differences in vocational identity exist among entering transfer students based on the type of institution from which they transferred?
4. Does the number of times a student has transferred affect his/her vocational identity?
5. Do normative data for transfer students differ from existing normative data generalized to the college student population?

### Overview of Methodology

This study employed a descriptive research design. Original data was collected from transfer students entering the University of Kansas (KU) using the My Vocational Situation (MVS) (Holland et al., 1980) assessment. In addition to the MVS scales, supplemental questions were added to the assessment to collect demographic information on each subject. The data collection took place on January 21, 2004 as a part of KU's spring orientation program for transfer, readmitted, and first-time freshman students. Chapter Three provides a more detailed explanation of the MVS, supplemental questions, research design, data collection processes, and data analyses.

### Definition of Terms

Before embarking on this research study, it was useful to have a clear and definitive understanding of the constructs being studied. Doing so helped to maintain an understanding of the scope of this investigation, as well as ensure that the researcher employed the most appropriate research design.

#### *My Vocational Situation*

Prior counseling models, information about indecision, and studies of career planning programs served as the catalyst for the development of the My Vocational

Situation (MVS) assessment, which helps counselors and clients identify obstacles to career decisiveness (Holland et al., 1980). The MVS consists of three scales – vocational identity, occupational information, and barriers. *Vocational Identity (VI)* refers to the degree with which a person is clear about his or her goals, interests, and talents. The *Occupational Information (OI)* scale addresses the need for information regarding a career path. Lastly, the *Barriers (B)* scale helps clients to identify what external factors may be preventing them from pursuing an occupational path (Holland et al., 1980).

#### *Transfer students*

Since this study was conducted at the University of Kansas, transfer students are defined as outlined by the Office of Admissions at the respective university. For the purposes of this study, a transfer student was defined as one who has completed “at least 24 credit hours at the time of application with a 2.0 or higher GPA on a 4.0 scale from a Kansas community college or regionally accredited Kansas college or university. Students transferring from an out-of-state institution must have completed 24 college credit hours with a 2.5 GPA or higher on a 4.0 scale from a regionally accredited community college or 4-year institution.” (University of Kansas Tips for Transfer Students, 2003, p. 6). Students transferring with less than 24 college credit hours can be admitted under special circumstances. If a student has previously attended another institution but is not transferring credits, he or she will be considered a first-time student instead of a transfer student.

Other terms to define are those related to the demographic questions. Specifically, students were asked to identify their gender, age, race/ethnicity, and academic classification. Definitions for each of these constructs are provided below.

*Age* – For the purposes of this study, age will be considered the period of one’s duration of life since birth.

*Gender* – Goodman and Schapiro (as cited in Adams et al., 1997) suggest gender identity “refers to one’s psychological sense of oneself as a male or female” (p. 115).

*Race/ethnicity* – Wijeyesinghe, Griffin, and Love (as cited in Adams et al., 1997) define *race* as a “social construct that artificially divides people into distinct groups based on characteristics such as physical appearance, ancestral heritage, cultural affiliation, cultural history, ethnic classification, and the social, economic, and political needs of a society at a given period of time. Racial categories subsume ethnic groups (p. 88).

Likewise, they define *ethnicity* as “a social construct which divides people into smaller social groups based on characteristics such as shared sense of group membership, values, behavioral patterns, language, political and economic interests, history and ancestral geographic location” (p. 88).

*Academic Classification* –The University of Kansas assigns students to a class level based on the following credit hour requirements: freshman 0-29 credit hours; sophomore 30-59 credit hours; junior 60-89 credit hours; and senior 90 or more credit hours (University of Kansas 2002-2004 Undergraduate Catalog, p. 37).

### Professional Significance of Study

The United States prides itself on democracy and the equal opportunity to achieve the “American Dream” afforded to every citizen. For most, attaining that dream is synonymous with having access to higher education (Billson & Terry, 1982). The most recent projections suggest a number of states, including Idaho, Nevada, California, Arizona, New Jersey, Georgia, and North Carolina, will experience a ten percent increase

in high school graduates by 2012 (The Chronicle of Higher Education, 2003). An additional nine states will see a five to ten percent increase in the number of students graduating from high school. Couple these projections with the current state of higher education and one can envision the potential strain on achieving the American Dream if access to higher education is limited due to increased demand and decreased state and federal funding of higher education.

The increasing cost of education, decrease in state and federal funding, increase in admissions standards, and increasing enrollment trends are all factors that make the transfer function more important. Already, public and private colleges are reporting record enrollments. Many of the increases are taking place in western and southwestern regions of the United States (Meline, 2003). The University of Florida, the University of Nevada at Reno, and the University of Colorado at Boulder are all similar in that the 2003-2004 academic year brought in their largest freshman class ever. Colleges are excited about the increase, but find themselves in a compromising situation. Campuses experiencing the extreme end of the pendulum, like the University of Texas at Tyler, are referring students to local community colleges to take courses that were overenrolled (Meline, 2003). St. Petersburg College denied admission to 800 students because they did not have the resources to accommodate them. In California, the largest system of higher education in the country with 51% of college students from ethnic backgrounds, state and college officials are questioning whether or not the state will have to revise its master plan, which currently guarantees access to higher education for every state resident. However, in 2004-2005 the California State System will consider limiting its enrollment



for the first-time (Meline, 2003). These actions are being implemented to meet increasing demand for college education.

The current state of the national economy is having a great impact on the current state of higher education. Today, college campuses are facing challenges that they have not witnessed in decades. Presently, the most salient issue is the increasing cost of education and the decrease in state and federal funding for higher education initiatives. The 2003-2004 academic year marked a milestone in higher education that has not been seen in three decades. That year's milestone is symbolic of the 14% average increase in the cost of tuition at four-year public colleges (Farrell, 2003). Because this figure is the average for all four-year public institutions, it is not reflective of the most extreme cases. Universities in Arizona and California comprise the top ten list of four-year public colleges with the largest increases in tuition, with University of California at Los Angeles headlining the list with a 43.1% increase compared to the prior year. The University of California at Berkeley rounds out the list, increasing its tuition by 37.1% compared to the beginning of its 2002-2003 school year (Farrell, 2003).

However, public four-year colleges are not the only campuses affected by the budget crisis, though oftentimes the impact of tuition increases are validated by what happens at our traditional institutions of higher education. In fact, public two-year colleges also have been affected by the budget crisis. In the current academic year, two-year colleges also have helped students cope with a 14% tuition increase (Farrell, 2003). Public two-year colleges largely construct our community college systems across the country. According to recent college enrollment trends (The Chronicle of Higher Education, 2002), public two-year colleges enroll 42% of all college students and 33% of

all students of color. Current research suggests that community colleges enroll 46%, 55%, and 46% of all Black, Hispanic, and Asian students, respectively (Marklien, 2003).

Though the average increase is reflective of what is happening with regard to public education, some students still opt to attend community colleges upon graduating from high school. Some reasons for this trend can be attributed to the fact that, although tuition is increasing at a rate comparable to four-year institutions, it is still less expensive. Additionally, there has been an increase in the number of articulation agreements between community college systems and four-year colleges, including Ivy League schools (Marklien, 2003).

One benefit that community colleges can boast is that the increase in financial aid, to support students during this time of budget crisis, goes a lot farther for community colleges than four-year schools. Calculations comparing the net cost of tuition, after financial aid has been applied, show that students attending public two-year institutions receive aid in excess of the cost of their tuition. As a result, students can use this extra money to apply toward their living costs (Farrell, 2003). In contrast, the financial aid provided to students attending public four-year institutions covers only approximately half of their tuition costs. For many students, this dynamic yields increasing financial debt for students upon graduating from college, as many are seeking federal and private loans to supplement other educational costs – books, room and board, and transportation.

The transfer function is becoming more important as higher education witnesses a change in student demographics and funding resources. However, little research has been conducted to study the adjustment issues of transfer students once they have enrolled at the four-year institution (Eggleston & Laanan, 2001). While Pascarella (1997) agrees that

community college students have been an important thread in the tapestry of higher education and their presence is more prevalent, he admits that liberal education in a residential setting is the standard by which we measure and value outcomes. In fact, in researching the effects of attending college, less than five percent of studies reviewed by Pascarella and Terenzini (1991) focused on community college students; far less representative of the more than 30% of students enrolled in community colleges (Pascarella, 1997).

Virtually no research focuses specifically on the career development of transfer students once they have entered the four-year university. Furthermore, research does not capture the differences in vocational identity among students that transferred from two-year, four-year, or vocational institutions. Of the limited research available on the transfer student population, most of it centers on transfer shock, or the decrease in grade point average, and their persistence in completing college (Eggleston & Laanan, 2001; Laanan, 2001; Laanan, 1996; Townsend, 1993; Pascarella, Smart, & Ethington, 1986). Since recent research indicates that students primarily attend college to prepare for careers (Levine & Cureton, 1998), it seems fitting that research should be conducted to analyze the career development of this population.

Determining whether differences exist among transfer students and their vocational identity could have several implications for the four-year institution. Understanding any such differences is likely to have an effect on the way students are academically advised, the services and programs career centers offer, and the articulation agreements between institutions. Another aspect to consider is limited enrollment programs, especially with regard to students needing to declare an academic major upon

entering the four-year institution. Although limited enrollment programs are a matter of academic affairs, student affairs should be concerned with such programs as they relate to services students utilize in the process of deciding on an academic major such as student organizations, career planning, and counseling centers. Student affairs should question if there is a substantial number of students applying to limited enrollment programs and not being admitted. If so, how does this affect the vocational identity of students once they have transferred to the four-year institution?

### Delimitations

This study took place at one large public, Research I institution in the Midwestern region of the United States. Thus, the results cannot be generalized to small, private, or religiously affiliated colleges and universities. Because readmitted students and students native to the university comprise a relatively small proportion of the sample population, this study focused specifically on determining the differences, if any, among the transfer student population. Lastly, this study did not determine if the vocational identity of the sample was affected, negatively or positively, during the transition from their former institution to the present one.

### Summary

Every indication suggests that transfer students are an important part of our campus landscape, and their presence is likely to increase as record enrollment trends are projected for the next decade. However, we are just now starting to understand their transition experiences and what impact it has had on college campuses thus far. Even as the literature begins to provide such knowledge, far less research documents the importance of career development of transfer students.

This study examined the vocational identity of transfer students enrolling at a large, Research I university in the Midwest. The following chapter discusses theories related to career development, transition, and academic and social integration of college students as these relate to the research questions posed by this study. Prior empirical research in these areas, with particular regard to transfer students, will supplement the theories to illustrate how they are reflective of college student experiences. Lastly, trends, issues, and experiences of transfer students will be examined, as they relate to the purpose of this study.

## CHAPTER II – REVIEW OF LITERATURE

The purpose of this chapter is to review pertinent literature related to career development and transfer students. The breadth and depth of career development theories will frame the context of this study. An examination of research specific to career development in college students will complement the theories, in an effort to show how such theories have been implemented in student development. Following career development, a review of transition theory and how it applies to transfer students will be addressed. Finally, this chapter will culminate with a rationale to support the research questions addressing the vocational identity of transfer students, thus fusing the literature presented.

### A Review of Career Development Theories

#### *Trait and Factor Theory*

Frank Parsons (1909) is credited with being a catalyst for understanding the process for choosing a vocation. Today, what we know of career development and its impact on human development is a result of the trait and factor theory. Parsons believed that choosing a vocation was the most important decision a person would make in their lifetime; even more important than choosing a spouse. At the time of his research, it was common for young men to choose an occupation and pursue it for the duration of their working life. Although most college students currently graduating from college spend less than five years in their first job (Nagle & Bohovich, 2000), one could argue that choosing a career path is of no less importance today than it was in the early twentieth century.

Deciding on a career is no arbitrary task. In fact, Parsons (1909) asserted that a coherent vocational choice required a person to have: 1) a clear understanding of self, abilities, interests, ambitions, resources, and limitations; 2) knowledge of the work world, including requirements, opportunities, and conditions of success; and 3) how congruent the self attributes are with the world of work. To this point, the foundational belief of his trait and factor theory rests on the idea that individuals are attracted to occupations in which the self and the occupational demands are congruent.

Early on, career counselors had few resources to equip individuals with the occupational knowledge to make informed career decisions (Parsons, 1909). Mostly, counselors relied on individual interviews as a way to gain understanding about the person and to have the person actively reflecting on their personal preferences, abilities, and limitations. However, the work of twentieth century psychologists brought a wealth of knowledge to the field (Scharf, 2002). The development of various psychometric measurements afforded counselors the opportunity to help clients identify their aptitudes, interests, values, and personality characteristics. Examples of such measurements include Scholastic Achievement Test (SAT), the American College Testing Assessment (ACT), the General Aptitude Test Battery (GATB), the Strong Interest Inventory (SII), the Values Scale (VS), and the Minnesota Multiphasic Personality Inventory-2 (MMPI).

Parsons (1909) reasoned that without knowledge of the world of work, it would be challenging for an individual to be efficient and successful in their career. Consequently, Parsons outlined *conditions of efficiency*, or specific knowledge and skills needed to perform in specific occupations. Although his list of occupations was representative of the prominent career paths of his time, today such a list would not

represent adequately the occupational choices available to college students. However, Parsons' early ideas have evolved significantly in order to have relevant use in present-day career decision making.

The National Career Development Association, formerly the National Vocational Guidance Association (1980), published guidelines regarding the quality and content of occupational information (as cited in Scharf, 2002). The guidelines mimic what Parsons established, but go beyond to address topics such as earning and benefits, advancement opportunities, and employment outlook. The two most widely used documents are the *Occupational Outlook Handbook* and the *Dictionary of Occupational Titles*.

The major goal of career counseling, according to Parsons (1909) theory, is the integration of information about self and the occupation. Although there are many tools and measurements to assess the individual and provide occupational information, none of the above mentioned tools effectively integrate these two aspects of career development. To that end, among the most comprehensive systems presently available are SIGI PLUS™ and DISCOVER™, which are interactive computer guidance information systems. These systems allow individuals to become more self-sufficient in meeting their own needs for self-assessment (Scharf, 2002). These systems measure interests and values, matching those with occupational information.

#### *Roe's Personality Theory of Career Choice*

Roe (1956) believes that individuals make occupational choices based on genetic influences and psychological needs as a result of parent-child interactions. Although her theory has biological and sociological aspects, psychological motivations form the



foundation of her theory. Fittingly, Maslow's Hierarchy of Needs is central to this theory (Osipow, 1973; Roe, 1956; Roe & Lunneborg, 1990; Scharf, 2002).

Building on Maslow's construct, Roe (1956) developed an occupational classification matrix. The eight-by-six matrix system details eight occupational groups and six levels of occupations. The occupational groups reflect types of occupations – service, business contact, organization, technology, outdoor, science, general culture, and arts and entertainment. The six levels of occupation are based on the prerequisites of each occupation with regard to the amount of responsibility, capacity, and skill needed. Lower levels of occupation require fewer skills, thus it is easier to move from one group to another and changes are likely to be more frequent (Roe & Lunneborg, 1990; Scharf, 2002).

Roe's theory suggests that interests and attitudes are developed involuntarily and are determined by patterns of satisfaction and frustration in early childhood (Scharf, 2002). Parental interactions greatly affect a child's pattern of frustration and satisfaction. As such, Roe outlined three ways a parent can be oriented toward a child (Roe & Lunneborg, 1990; Scarf, 2002). Parent-child relationships can be conceptualized as 1) emotional concentration on the child, 2) avoidance of the child, or 3) acceptance of the child. The premise of Roe's theory lies in understanding the orientation of the parental attitude toward the child. She asserts that the orientation of the relationship can predict one's occupational selection later in life. For example, Roe hypothesized that individuals who select scientific occupations may prefer data to people because they may have been ignored or rejected by their parents (Scharf, 2002). Likewise, those choosing service

occupations are likely to do so because they have a strong orientation toward others and may have experienced a loving acceptance from their parents.

### *Holland's Theory of Types*

If one believes that personality is a product of one's biological, sociological, and psychological characteristics, Holland's theory of types (1973) may be the common ground between the works of Parsons (1909) and Roe (1956). Holland (1973) suggests, "the choice of a vocation is an expression of personality" (p. 6). He asserts his logic in saying, "if vocational interests are expressions of personality, then it follows that interest inventories are personality inventories" (p. 7). What has been defined as vocational interests encompass a person's hobbies, recreational activities, and preferences. Thus, a person's vocational interests incorporate a wide range of personal and background, or environmental, information.

Holland (1973) suggests that six personality types can characterize people: realistic, investigative, artistic, social, enterprising, and conventional. He believed that the closer a person expresses traits and behaviors specific to one type, that they are naturally attracted to environments similar to their type, and that the interaction of the same personality and the environment types enables us to predict outcomes such as vocational choice, vocational stability, and personal competence. In addition to these ideas, this theory is based on four assumptions (Holland, 1973, p. 5):

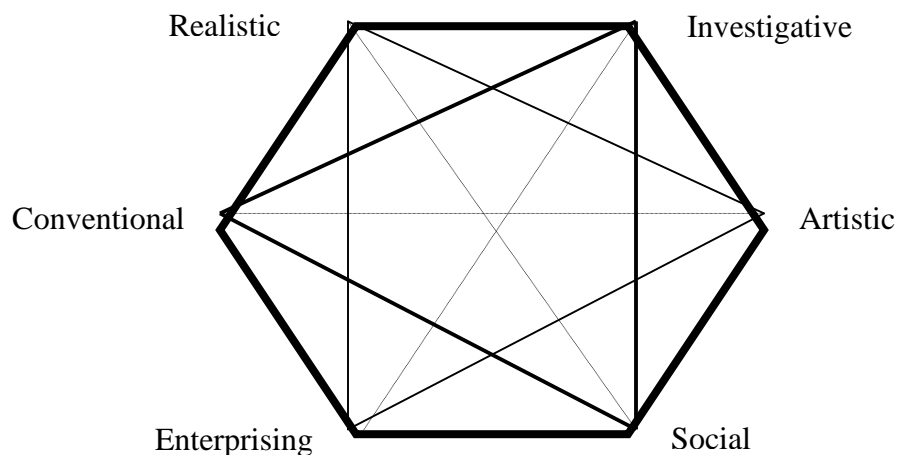
1. Most people can be categorized as one of six types: realistic, investigative, artistic, social, enterprising, or conventional.
2. There are six kinds of environments: realistic, investigative, artistic, social, enterprising, and conventional.
3. People seek environments that will let them exercise their skills and abilities, and express their attitudes and values.
4. Behavior is a function of the interaction between the person and the characteristics of their environment.

Complementing these primary assumptions are secondary assumptions:

- Some type pairings are more congruent than others, thus affecting vocational preference (i.e. artistic-social is a more congruent pairing, whereas realistic-social is one of the least congruent pairings)
- The more closely a person resembles a particular type, the more differentiated their vocational preference. Likewise, a person is considered undifferentiated if they resemble many types.
- An individual characterized as one type will be congruent with the same type environment (i.e. a realistic type will more easily adapt to a realistic environment). In cases where the type of the individual and environment differ, incongruence is said to occur.
- “The relationships within and between types or environments can be ordered according to a hexagonal model in which the distance between the types or environments are inversely proportional to the theoretical relationships between them.”

Figure 2.1

*A Hexagonal Model for Defining the Psychological Resemblances Among Types and Environments and Their Interactions*



*Note.* From *Making vocational choices: A theory of careers*, by J.L. Holland, 1973, p. 23. Englewood Cliff, New Jersey: Prentice-Hall.

### *Super's Life-Span Theory*

Life-span theories have been instrumental in gaining an understanding of the different career needs and issues over a lifetime. The most prominent theorist of the life-span is Donald Super (1957). Taking into consideration that basic life stages included infancy, childhood, adolescence, adulthood, and old age, Super was among the first to apply the concept of life stages to vocational psychology. Much like basic life stages, Super's theory speaks to the importance of stages and developmental tasks. Super outlines five basic stages of career development: exploration, establishment, maintenance, disengagement, and recycling.

The exploration stage occurs from fifteen to twenty-five years old, in which persons are engaged in merging their self-concept with the realities of the world based on the information they have received (Super, 1957). The information gathered thus far, and what still remains to be gathered, can be manifested in various ways, including part-time work, orientation courses, and general education requirements. This stage is characterized by three substages (Scharf, 2002). The first, crystallizing, is concerned with individuals clarifying their goals and aspirations. The second, specifying, encourages individuals to face the reality that they need to preference their vocational interests in an effort to make their career search more realistic. Lastly, implementing, involves developing and acting on a plan to fulfill career objectives. The age range of this stage overlaps with traditionally aged college students, thus making it the most relevant stage to the proposed research. However, other stages of Super's career development theory are also relevant, particularly considering that the college students in this research study ranged in age from 18 to 61 years.

Establishment is the second stage of Super's (1957) theory, which occurs from the ages of twenty-five to forty-five. The main goal of this stage is to become employed, representing the beginning of a career life (Scharf, 2002). The substages of establishment include stabilizing, consolidating, and advancing. Once a person is settled into a job, they can begin to understand and meet the job requirements. Upon doing so, individuals reach a certain level of comfort, or competency, that allows them to perform tasks independently. Receiving a promotion in position and/or pay usually signifies advancing.

A forty-five to sixty-five year old professional that is employed, but not advancing is considered to be in the maintenance stage (Scharf, 2002; Super, 1957). At this point, a person's mobility in a career may be dependent upon their physical ability, financial situation, and intrinsic motivation. Individuals in this stage usually fall into one of three patterns: holding, updating, and innovating. The *holding* individual is concerned with being content their current position. Conversely, others may seek to pursue continuing education to maintain their career path (*updating*). Still others may become more creative in their occupational capacities, thus offering new ideas to their profession (*innovating*).

It is expected that individuals will make a decision to retire and tend to more personal interests after many years of making professional strides. At this point, people usually disengage from their career life (Scharf, 2002; Super, 1957). Synonymous with this stage are actions of decreasing the workload, planning for retirement, and retirement living. The age at which persons reach this stage is different for each person. However, financial stability and personal ability are often important factors in making this decision.

Although Super (1957) outlines his stages according to age, he acknowledges that the progression for each individual is likely to differ. Some will not follow these stages, as prescribed since many reassess their career interests at various points in their life (Scharf, 2002). As a result, individuals are more likely than not to progress through the exploration stage multiple times in one's working lifetime.

### *Theory of Occupational Choice*

The works of Ginzberg, Ginsburg, Axelrad, and Herma (1951) was one of the most significant contributions to life-span theory. Basing their research on interviews of mostly upper-class, white adolescents, they determined that the career development process occurred in three periods: the fantasy period, the tentative period, and the realistic period.

During the fantasy period (up to age 12), adolescents manifest their thoughts about future work through play and imagination (Ginzberg et al., 1951). At this point, children are not developmentally capable of assessing their values, abilities, or limitations. Therefore, they are likely to believe that they are capable of achieving whatever career goals they set their minds to.

The tentative period brings about the realization that individuals will have to make some choices about their future career aspirations (Ginzberg et al., 1951). Included in this period is acknowledging one's interests, abilities, values, and the knowledge of world of work. As individuals become fully engaged in this period, they begin to realize that their career development process is becoming more objective. The tentative period is divided into four stages addressing the development of interest, capacity, value, and transition.

Because the realistic period is subject to the realities of each person's current environment, it would not be appropriate to label it with specific characteristics (Ginzberg et al., 1951). Although the researchers conclude that the realistic period is a valid period of career development, they assert that it is the individual's responsibility to make a decision based on a compromise of their desires and their environment.

In their initial development of this theory, Ginzberg, Ginsburg, Axelrad, and Herma (1951) concluded that the career development process is irreversible. They believed this to be true because age and personal development determine one's progress in the process. Since time cannot be relived, they assert, future decisions will always be based on previous ones. This is where their findings deviate from those of trait and factor theory. Trait and factor theory subscribes to the idea that as individuals encounter new experiences, they will naturally reassess their skills, interests, values, abilities, and personality (Scharf, 2002). Eventually, Ginzberg (1984) modified the early works of Ginzberg et al. (1951) to address the idea of reversibility. His revisions conclude that while individuals can reassess their career decisions, their prior decisions will have a significant impact, both positive and negative, on their future decisions.

#### *Tiedeman and O'Hara's Process of Career Decision Making*

Tiedeman and O'Hara's (1963) descriptive approach to career decision-making is influenced by the works of Super (1957) and Ginzberg, Ginsburg, Axelrad, and Herma (1951). Their model acknowledges an individual's unique characteristics and situation, and the complexity of the decision-making process (Scharf, 2002). Tiedeman and O'Hara (1963) believe there are two major stages to career decision-making: 1) anticipating a choice, and 2) adjusting to a choice.

The influence of Super's (1957) theory is very apparent in Tiedeman and O'Hara's first stage of anticipating a choice. Similar to Super's Exploration stage, Tiedeman and O'Hara assert that anticipating a choice consists of four phases: 1) exploration – acknowledging prior experiences and possible goals; 2) crystallization – stabilization of thoughts and making temporary choices; 3) choice – person becomes aware of clarity and complexity of choice; and 4) clarification – reassessing choice and clarifying options (Scharf, 2002; Tiedeman & O'Hara, 1963).

After making a choice, the second stage of career decision-making involves adjusting to that choice. The three phases of this adjustment period are 1) induction – the individual implements and commits to the choice he or she has made; 2) reformation – working environment and group dynamics adjust to the introduction of a new member; and 3) integration – the individual and the group accept each other (Scharf, 2002; Tiedeman & O'Hara, 1963).

Career development theorists have helped to conceptualize the process of making a career decision. From the discussion, it is evident that career development can be impacted by various life experiences, all of which subconsciously influence our future career decisions. As one matures from infancy to old age, our biological, sociological, and psychological environments provide valuable information that will shape interests, abilities, and skills, which directly affects the lifelong career development process.

### Career Decision Making and Demographic Factors

This study sought to understand how vocational identity of transfer students differed with regard to gender, age, academic classification, and race/ethnicity. The



following is a discussion of each of these variables as they relate to college students and career development.

### *Gender*

Normative data established for the My Vocational Situation (MVS) (Holland et al., 1980a; Holland et al., 1980b) assessment indicates that male college students and workers have higher levels of career certainty, fewer needs of occupational information, and acknowledge fewer perceived barriers to occupational goals than do female college students and workers. However, the researchers do not indicate whether or not these differences are statistically significant. Other studies employing My Vocational Situation yielded mixed results. In a study of undergraduate psychology majors at a comprehensive Southern university, Poe (1991) sought to examine if MVS scores for freshmen, sophomore, junior, and seniors in the same academic major differed. Means and standard deviations of Vocational Identity (VI), Occupational Information (OI), and Barriers (B) scale scores were conducted for gender, for each class, and for the interaction of gender and class. The results indicated that subjects' gender only had a statistically significant affect on Occupational Information (OI) needs, with women reporting a higher need for occupational information than men. Although understanding the differences in career planning needs of men and women may be helpful to the career counseling process, the validity of Poe's (1991) study is severely limited by sample bias in that women are represented almost four times more than men.

In another study, Lucas et al. (1998) explored their hypotheses that women would have lower vocational identity scores than men and that vocational identity would increase with age. To answer the research questions, the study used three groups: 1) all

freshman entering a large Midwestern university; 2) a subgroup of freshmen with undeclared majors; and 3) adults seeking career counseling. Overall, the aggregate results of their study did not reveal any statistically significant differences between men and women on the Vocational Identity (VI), Occupational Information (OI), or Barriers (B) scales of the MVS. However, the results did seem to indicate that a significant difference between undeclared freshman men and women did exist.

In a study using an instrument different from MVS, Healy and Reilly (1989) studied almost three thousand students from ten California community colleges to examine age and gender differences in career needs. They found that women reported the need to become more certain about their career plans, while men indicated a greater need for obtaining a job. Although women reported more of a need to be certain about their career plans, they expressed no more need in knowledge about their interests and abilities, decision making, and exploring careers than did men.

#### *Age and Academic Classification*

Many theorists assert that an individual's career development occurs in stages or phases according to age (Super, 1957; Ginzberg et al., 1951). Others not outlining career development by age suggest that the process at any given time is a product of prior experiences, thus relating to age (Roe, 1956).

Haviland and Gohn (1983) conducted a study at Montana State University using a stratified random sampling technique to determine if the career planning needs would differ by class (freshman, sophomore, junior, senior). The study found that freshmen and sophomore students were less likely to have decided on a specified vocational area or job than were juniors and seniors. In another study using the MVS instrument, Poe (1991)

reported that Vocational Identity (VI) and Occupational Information (OI) scores of undergraduate psychology majors were significantly correlated with academic classification. Thus, students further along in their college academic careers were more certain about their vocational goals and had less of a need for occupational information than students in the early semesters of their academic progress. However, as previously mentioned, the validity of this study is limited by the small sample size. In fact, only one of eight cell sizes analyzed contained the minimum thirty-five subjects necessary to conduct statistical analysis (Upcraft & Schuh, 1996). Lucas et al. (1988) found that adults seeking career counseling only had slightly higher vocational identity scores than university freshmen, though the difference was not found to be statistically different.

#### *Race/Ethnicity*

The development of early career development theories did not take race and ethnicity into consideration. In fact, most were based on studies using white males since they were more prominent than women in the workforce and higher education (Parsons, 1909; Super, 1957; Ginzberg et al., 1951). Race and ethnicity can also have an impact on career aspirations, decision-making needs, and strategies. Arbona and Novy (1991), using data collected from a broader survey, examined the career aspirations and expectations of Black, Mexican American, and White students. Their findings indicated that while there was no significant difference in career aspirations among the ethnic groups, there was a difference in career expectations among the groups. Specifically, the majority of Black, White, and Mexican American males expected to enter Enterprising or Investigative careers. For White and Mexican American students, gender was more highly associated with career choice than ethnicity. More Black women than Mexican American or White

students expected to enter Realistic, Investigative, and Enterprising occupations combined.

In a comparison of Asian American and White college students, Leong (1991) used several career development scales, including the MVS, to examine the differences in career development attributes and occupational values between the groups. Using only the Vocational Identity (VI) scale of the MVS, Leong (1991) found no significant difference between Asian American and White students. However, the results did suggest that Asian Americans exhibited lower levels of career maturity, as measured by the Career Maturity Inventory (CMI), compared to White Americans. These findings support the idea that vocational identity and career maturity are indeed different constructs and the findings of each scale should be interpreted differently. The Assessment of Career Decision Making Styles Subscales and Occupations and Values Scale of the CMI were employed to identify differences in career decision-making styles. The results showed that Asian Americans have more dependent career decision-making styles and they place more emphasis on extrinsic factors, such as salary and achieving special status and prestige, than do their White counterparts. These findings may be partially explained by the influence of traditional Asian family and cultural values (Kodama et al., 2002). Different from Western individualistic culture, Asian values lie in collectivism, interdependence, and placing the needs of the family before the individual.

Career development among ethnic groups of community college students yield mixed results. Teng et al. (2001) used existing data from the National Center for Educational Statistics to determine if any differences existed between the groups regarding career goals, career preparation actions, and the number of job seeking

strategies utilized. White, Black, Hispanic, and Asian American community college students were studied. In comparison to White students, the results implied that utilizing previous work experience, having a good income start, freedom to make their own decisions, and job security were more important to Black students' career goals. Additionally, Hispanic students also indicated that utilizing previous work experience was more important than did White students. Black and Hispanic students seemed to view education and training benefits as a career goal as less important than their White peers. Results of their study further indicated that Black students were less likely than Whites to engage in career preparation actions, such as attending career related lectures. Lastly, there were no significant differences among ethnic groups with regard to job seeking strategies employed. Although the researchers included four ethnic groups in their sample, this study is limited by the fact that only the results of Black and Hispanic students were revealed, while the results of Asian American students were not reported (presumably due to insufficient sample size). Neglecting to report Asian American students' scores does not provide the opportunity to compare and contrast their overall results with those of Asian American students in studies such as those conducted by Leong (1991).

The career development process cannot be studied independent of an individual's identity. The referenced research emphasizes how various demographic factors impact career development, it also provides a rationale to further explore these variables in this study.

## Transition Theory

Understanding transition theory provides some insight to what transfer students experience upon entering their destination institution. Many would say that transition is initiated by a new beginning, but few would say transition would begin with an end.

William Bridges (1980) argues that transitions begin with an ending. As a person leaves a job, graduates from high school, or ends a relationship, they are in fact starting the transition process. According to Bridges, the end is followed by a neutral zone, and, finally, beginning anew.

The *endings* phase that Bridges (1980) speaks of consists of disengagement, disidentification, disenchantment, and disorientation. While it is important to know that not every person will experience each of these aspects, understanding the characteristics of each can enlighten those helping others cope with transition. Disengagement refers to the need to separate oneself from a prior role. Disenchantment and disorientation are representative of the transition that is being set into motion (Bridges, 1980). Those experiencing such aspects of the *ending* phase recognize that they are moving beyond their former reality, to an unfamiliar one.

The *neutral zone* is a phase of being between two spaces (Bridges, 1980). The new *beginning* is the end of the transition process. This phase can illicit positive feelings of excitement, rejuvenation, and new visions as a result of a new relationship, career, or life milestone. Simultaneously, these feelings can be accompanied by feelings of fear, self-doubt, and incompetence.

### *The Transition Model*

Bridges (1980) transition process, though never empirically tested, helps us to understand the process of transition. However, a more prominent transition theory model informs us of resources available to facilitate the process. The individual transition framework developed by Schlossberg, Waters, and Goodman (1995) has three parts: 1) approaching transition; 2) taking stock of coping resources; and 3) taking charge. The central focus of this theory is the 4S System – self, situation, support, and strategies (Figure 2.2).

When approaching transition, Schlossberg et al. (1995) suggest first identifying what type of transition is being incurred. Their framework addresses three types of transition – anticipated, unanticipated, and non-event transitions. Anticipated transitions are identified as predictable changes in a lifecycle, such as childbirth, marriage, and graduation.

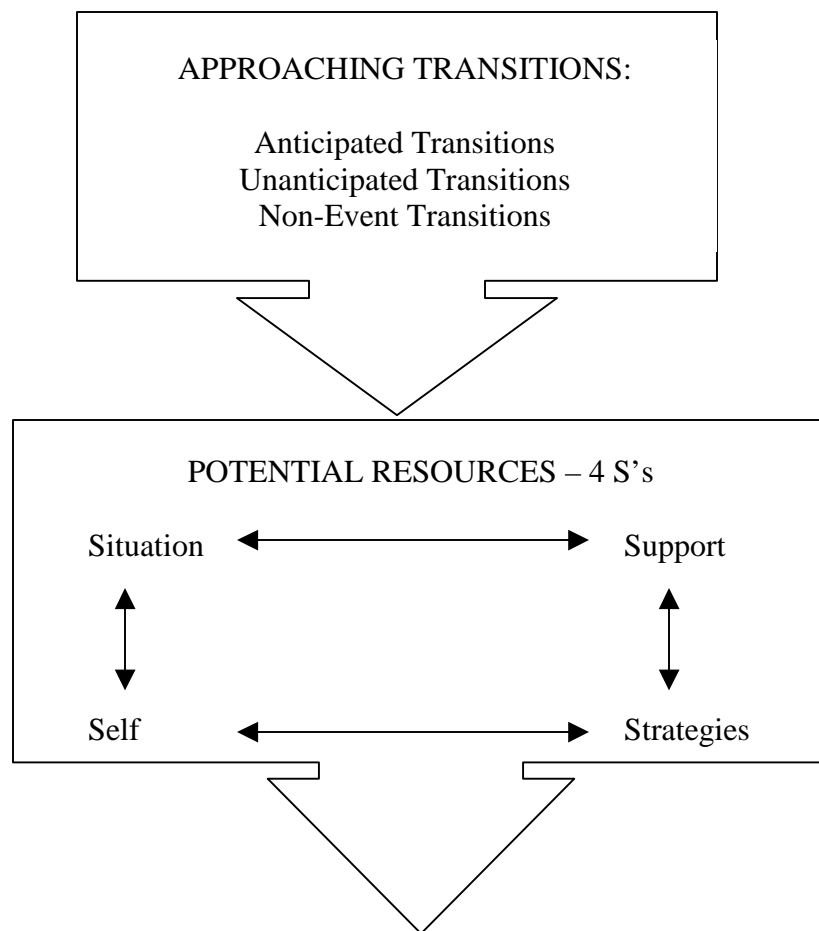
Unanticipated transitions occur when changes are not expected or predicted by a person. Examples of unanticipated transitions include divorce, death, and accidents. Lastly, non-event transitions are those that one expects, but which never occur (Schlossberg et al., 1995). Though there are multiple definitions of transition, for the purposes of the framework, transition is defined by the individual's perception of the changes taking place and is only a transition "if it is so defined by the person experiencing it" (p. 28).

The 4S System identifies four variables that are essential for coping with transitional change. *Situation*, the first variable, differs for each individual due to what caused the transition, the timing, the duration, and prior experience with similar situations

(Schlossberg et al., 1995). The cause of the situation can either be something happening to the individual or someone close to the individual. For each person, the duration and level of impact the transition has on one's life affects the situation. The amount of control, or lack thereof, determines whether the source of the transition is internal or external. For most, the situation and the context of the transition often leads to a role change, which will determine the impact on one's life.

Figure 2.2

*The Individual Transition Framework*



Source: Adapted from Schlossberg, Waters, & Goodman (1995, p. 27)



Personal and demographic characteristics and psychological resources have a direct affect on the *Self*, the second variable of the 4S System (Schlossberg et al., 1995). It is important to identify these characteristics and resources to determine how the individual will affect the transition. Understanding that different intrinsic factors interacting with the environment can produce varying outcomes, one would be negligent if they did not consider how socioeconomic status, gender, age, and health can directly affect outlook on life. In addition to these characteristics, race and ethnicity speak to one's personal values and cultural norms. Varying combinations of each of these characteristics are likely to produce different outcomes in similar situations. Thus, considering each case on an individual basis becomes paramount. Likewise, it is to the benefit of the counselor that they have a clear understanding of the client's psychological resources, such as ego development, optimism, self-efficacy, and commitment and values. Understanding these aspects of an individual's personality will help the counselor determine effective interventions and the level at which a person is capable of coping with the impending transition.

Aside from the person dealing with transition, perhaps the most important factor is the *Support* available to endure the process (Schlossberg et al., 1995). People can find support in family, friends, personal communities, and institutions. These support options serve to affect, affirm, and aid one through the process of transition. However, in seeking support, one must be aware that the functions of support are more effective when they offer both the positive and negative feedback.

*Strategies*, the fourth variable of the 4S System (Schlossberg et al., 1995), address the constructs people use to deal with change. When confronted with change, most

people aim to alleviate, or minimize, the stress that will accompany it. Individuals will usually seek to reassess the situation, gain more control over the situation, or deal with their stress after the change has occurred.

The works of Bridges (1980) and Schlossberg et al. (1995) provide a context to introduce literature about transfer students and their issues. The following discussion regarding trends and issues associated with transfer students examines their social and academic culture. The literature provides an understanding of the characteristics of this population, their situations, supports, and issues affecting their success.

#### Transfer Students: Trends and Issues

In her efforts to understand transfer students, Fredrickson (1998) sampled 4,753 students enrolled in one of the 16 public universities in the University of North Carolina System (UNCS) in the fall of 1993 after attending a North Carolina Community College in 1990, 1991, 1992, or 1993 (p. 44). Her findings suggest that the average transfer student tended to be white, a woman, and 26 years old. Upon entering the four-year university, transfer students are likely to have, on average, earned 22 credits and not earned an associate's degree. Unlike the last term at the community college, where this student worked part-time and attended school part-time, she enrolls as a full-time student during her first term at the four-year university. Her grade point average increases from her first to second semester, and she returns to the university for a second year.

Classrooms serve as the formal academic environment on college campuses, therefore the relationships between faculty and students are important aspects of academic integration (Tinto, 1987). However, academic integration is only one component of Tinto's model. Tinto also asserts that institutional experiences and

environments are important to personal success and student persistence. In order for traditional institutions of higher education to assist transfer students in their transition process, they need to understand the characteristics of the population to determine what support programs and environment factors will contribute to their academic success (Eggleston & Laanan, 2001). Developing such programs and supportive environments can be challenging considering that transfer students transcend many demographics of traditional college students, including age, employment patterns, persistence, academic experiences, and socioeconomic status. Though their culture and previous experiences alone justify tailoring efforts to specifically address their needs, Eggleston and Laanan (2001) assert that transfer students are like traditional students in that they also experience academic and social integration issues.

In line with Schlossberg et al. (1995) transitional theory, Laanan (2001), Keely and House (1993), and Townsend (1995) concluded that the transition process for community college students transferring to four-year institutions presents challenges to adjusting psychologically, academically, and environmentally. These challenges reflect the variables in the 4S System (Schlossberg et al., 1995), though the strategies for dealing with them vary by institution. Acknowledging that the transfer status influences cognitive and affective outcomes is the first step to developing strategies to facilitate more effective and efficient transitions to the four-year university (Laanan, 2001). Now, more than ever, understanding the issues and transition experiences of this population is important considering that the national rate at which students transfer is approximately 25% (Cohen & Brawer, 2003).

### *Transfer Behavior Patterns*

The National Center for Education Statistics (NCES) (1997) conducted a four-year, longitudinal study to examine the transfer behavior among students who began their postsecondary education in the 1989-90. The study reports some important findings that provide insight as to how prevalent transfer behavior is among college students, and underscores the need to address the needs of this population. Broadly speaking, 45% of students had enrolled as undergraduates in more than one institution by 1994. Within this group, one-third has attended two institutions, and an additional 12% had attended three or more institutions. Differences existed between those transferring from two-year institutions and four-year institutions.

Twenty-eight percent of students beginning at a four-year institution had transferred by 1994. Sixteen percent transferred to another four-year institution (horizontal transfers), and the remaining 13% transferred to an institution other than a four-year college or university. On average, students transferring from a four-year institution transferred after 14 months and did not enter the destination institution until seven months later (NCES, 1997). The results of the NCES study revealed that lack of intellectual growth, teacher ability, institutional prestige, and social life was positively related to a student's decision to transfer (NCES, 1997). Additionally, students indicating that their native institution lacked job placement, job counseling, and personal counseling services were more likely to transfer than students who were satisfied with these services on their respective campuses.

In contrast, students transferring from a two-year college to a four-year institution usually did so after 20 months, and took longer to enroll at the destination institution,

often without an associate's degree (NCES, 1997). Forty-three percent of students beginning at a two-year college in the 1989-1990 academic year transferred to another institution by 1994. Of those transferring, 22% transferred to a four-year institution and 15% transferred to another two-year college. Seventy-eight percent of those transferring from two-year colleges made the transition without an associate's degree. In addition, almost 25% stopped out of higher education for more than three years, compared to only two-percent of four-year institution transfers exhibiting the same behavior.

#### *Academic Adjustment of Transfer Students*

Most research addressing students, especially community college students, transferring to four-year institutions is focused on academic adjustment (Laanan, 2001). The most common measurement used to assess academic adjustment is grade point average because it is a common standard for determining admission status. Transfer shock is a common phenomenon among this population. Transfer shock refers to the temporary decrease in grade point average during the first semester or two after transferring (Glass & Harrington, 2002; Nolan & Hall, 1978; Williams, 1973). Studies seeking to understand the transfer shock phenomenon have unveiled mixed results, though they all corroborate that this phenomenon is real. Townsend, McNerny, and Arnold (1993) found that, on average, community college transfers maintained a 2.9 cumulative grade point average while at their originating institution. However, they only earned a 2.4 grade point average during their first semester at the four-year institution. More importantly, the researchers hypothesized that achieving a higher cumulative grade point average after transferring was dependent upon the student having maintained a high grade point average at the community college. Though insightful, the results of this study

are a bit misleading because the researchers compared the cumulative community college grade point average, consisting of a minimum of twenty credit hours, to only one term at the university.

Glass and Bunn (1998) also found that community college transfers experienced a decrease in academic performance upon transferring to a university. Likewise, Glass and Harrington (2002) reported similar, but mixed, results using two cohorts. Their study contributed to the depth of prior research by comparing the academic performance of community college transfers to that of native students, or students that entered as freshman, at a large state university. Additionally, their results provided a comparison of academic performance of lower-level versus upper-level division courses. In their study, Glass and Harrington found that no significant differences in grade point average existed between native and transfer students at the end of their lower level division coursework in the first cohort. However, the results of the second cohort indicated that transfer students had a significantly higher mean grade point average than native students. After one semester in their academic major, or upper level division courses, the mean semester GPA for transfer students of the first cohort was significantly lower than that of the native students, suggesting that there was some evidence of transfer shock. In the second year, the results of the second cohort again revealed no significant difference in mean semester grade point averages. However, in comparing the two mean semester grade point averages of the second cohort, there was evidence that transfer students experienced transfer shock once they began taking classes in their academic major, whereas the mean semester GPA of native students did not differ under the same circumstances. Further tracking, accounting for attrition and retention, showed promising gains on behalf of

transfer students. The results of the subsequent year indicated that transfer students recovered from transfer shock, thus lending credence to the hypothesis that the experience of this phenomenon is generally limited to the first two semesters after transfer (Nolan & Hall, 1978; Williams, 1973). Although Glass and Harrington's (2002) research compliments prior literature, one major limitation of their study is they did not make any attempts to compare cumulative GPA to give a broader perspective of the differences between the two sample populations.

Another issue affecting transfer student's academic integration is the loss of credits during their transition. Lamberts' (1977) study showed that approximately 21% of students transferring from the community college to the four-year university lost credits, meaning that the university did not accept all of the academic credits they earned at their former institution. Similarly, Townsend et al. (1993) found that students transferring from a suburban community college to a private university had earned an average of 56 credit hours, however only 47 academic credits were accepted by the university; netting a loss of nine credits. Loss of credits can potentially impede academic integration, persistence, and degree completion, especially in cases where no transfer articulation agreement exists between the community college and the university.

#### *Social Adjustment of Transfer Students*

On par with academic performance, social integration is equally as important (Tinto, 1987). Transferring to a new institution brings a new environment, which may differ in racial and ethnic diversity, size, and physical landscape (Hurtado, 1996; Hurtado et al., 1996). These factors are likely to add to the challenges of the transition process.

To assist in their transition to the university, community college transfers reported that they relied more on friends and family than the community college, (Townsend, 1995). These findings seem to indicate that transfer students are more self-sufficient in their transition process, whether intentional or not. Whereas students indicated that individual attention at community colleges was an advantage to their persistence, they were less likely to find the same at the university (Laanan, 2001; Davies & Casey, 1999; Collison, 1991). To this end, one important factor in socially integrating transfers into the new campus environment is new student orientation programs. Students have indicated that orientation programs are instrumental in attaining basic information about campus procedures and resources such as registration, housing, financial assistance, and finding offices that offer mentoring services to transitioning students. Eggleston and Laanan (2001) advocate for the need to have orientation programs exclusive to transfer populations so that their needs are not lost among the greater population of traditional students. Providing supporting evidence for this idea, the results of a transfer student focus group held at a large, Research I university in the mid-Atlantic region revealed that orientation programs were more focused on traditional freshman students and little attention was given to the needs of transfer and commuter students (Hampton et al., 1999). Additionally, transfer students find all inclusive orientation programs do not consider their work patterns, thus not offering alternative evening orientation programs for transfer students working full-time (Davies & Casey, 1999).

#### *Career Development of Transfer Students*

Students acknowledge that career preparation is the most important reason for attending college (Levine & Cureton, 1998, p. 115). Though their issues and



circumstances may differ, transfer students attend college with the same ideals of achieving their career aspirations. However, limited research exists with regard to transfer students and career planning. Lamberts' (1977) study of 473 of students enrolled in the Oregon State System universities following their academic careers at Lane Community College attempts to address this issue. Her results concluded that career planning was the only service for which transfer students indicated a *great* need. Of the 53.9% indicating this to be true, 60.5% were women and 48.9% were men. Additionally, the study showed that the primary reason for students enrolling at the community college as their first institution was due to financial concerns. Beyond the primary reason, women and men ranked uncertainty about vocational choice as their second and third reasons, respectively.

### Summary

This chapter reviewed four broad topics relevant to the population being studied: career development theories, transition theory, and the trends and issues affecting transfer students. Studies related to these topical areas were included to lend support to the notion that career development is an important factor for college students in general and, more specifically, for transfer students.

However, the literature review also revealed that limited research exists on transfer students as a population. Further, research regarding transfer students and their career development has rarely been addressed in the published literature. Still, the combination of research conducted after the student has transferred to the university and the effect of the transition on career development is virtually nonexistent. As evidenced by the literature reviewed, there is a major gap in the student development literature

regarding transfer students and their experiences. As colleges and universities begin to prepare for a surge in enrollment patterns, and surely transfer admissions, it is important that this gap be addressed. The insights gained from the results of this study compliment the body of literature regarding transfer students, and provide preliminary information about a new dimension of career development. The results of this study serve to inform college administrators and career centers about the services needed to address the career development issues of transfer students.

In an effort to address the gap in literature, the following chapter will discuss the methodology used in this study to understand the vocational identity of transfers students upon enrolling at a four-year, Research I institution in a Midwestern state. The chapter will detail hypotheses, sampling, instrumentation, data collection procedures, and data analysis techniques.

## CHAPTER III - METHODOLOGY

### Research Design

As introduced in chapter one, this descriptive study sought to identify vocational identity difference among transfer students at the University of Kansas. This chapter outlines and explains the methodology to answer the overall research question. For the purposes of this study, significance is measured at  $p < .05$ . Considering that there are various demographic characteristics among each population, it was essential to analyze the differences between and among transfer subgroups. It is hoped that doing so will provide additional insight as to how transfer status does or does not affect vocational identity. The primary research question is:

1. In what ways, if at all, does vocational identity differ among sub-populations (i.e. academic classification, gender, age, and ethnicity) of entering transfer students at a large public, Research I institution?

Secondary questions to be addressed are:

2. Does the number of credits earned by a transfer student affect his/her vocational identity?
3. What differences in vocational identity exist among entering transfer students based on the type of institution from which they transferred?
4. Does the number of times a student has transferred affect his/her vocational identity?
5. Do normative data for transfer students differ from existing normative data generalized to the college student population?

## Hypotheses

The following null hypotheses are proposed:

### *Hypothesis 1:*

- a:* There is no significant difference in vocational identity among transfer students with regard to gender.
- b:* There is no significant difference in vocational identity among transfer students based on academic classification (i.e. freshman, sophomore, junior, senior).
- c:* There is no significant difference in vocational identity among transfer students with regard to age.
- d:* There is no significant difference in vocational identity among transfer students with regard to race/ethnicity.

*Hypothesis 2:* There is no significant difference in vocational identity of transfer students and the number of credits earned.

*Hypothesis 3:* There is no significant difference in vocational identity of transfer students based on the type of institution from which a student transferred.

*Hypothesis 4:* There is no significant difference in vocational identity of transfer students based on the number of times a student has transferred institutions.

*Hypothesis 5:* There is no meaningful difference in MVS normative data of sampled transfer students and the normative data established by the MVS authors.

## Sample

The sample for this study consisted of students who self-selected to participate in spring orientation at the University of Kansas, a large public Research I institution in the Midwestern region of the United States. Spring orientation was conducted as a one-day

session that served first-time freshmen, transfer, and readmitted students. For the purposes of this study, only transfer students were administered the instrument. A transfer student was defined as one who has completed “at least 24 credit hours at the time of application with a 2.0 or higher GPA on a 4.0 scale from a Kansas community college or regionally accredited Kansas college or university. Students transferring from out-of-state must have completed 24 college credit hours with a 2.5 GPA or higher on a 4.0 scale from a regionally accredited community college or 4-year institution.” (University of Kansas, 2003, p. 6). Students transferring with less than 24 college credit hours can be admitted under special circumstances. If students have previously attended another institution but are not transferring credits, they were considered as first-time students instead of transfer students.

Convenience sampling was used to collect data for this study. The advantages of this sampling method are the ease of collecting data and the probability of a high response rate. A disadvantage of this method is the results may not be generalizable because the sample makeup may be biased toward one population or another. Further, the University of Kansas does not require transfer students to attend orientation programs upon being admitted, thus this sampling method only targets those who self-selected to attend spring orientation. However, the choice to use convenience sampling in this case is justified by the fact that these transfer students are actively involved and highly conscious of their pending transition, therefore targeting a setting where they are likely to be present makes sense. Because there was only one orientation day conducted for students admitted for the spring semester, it was the best opportunity to collect data from a captive audience, thus avoiding the challenges associated with low response rates of mail surveys

and the prohibitive costs with which they are associated. The sample consisted of 253 subjects.

### Instrumentation

To assess the vocational identity of each subject, the researcher utilized an existing survey instrument, “My Vocational Situation,” as well as additional questions to collect demographic information. Permission to modify the instrument was granted from the licensing department of Counseling Psychologists Press, Inc. (Appendix A). Due to CPP, Inc. copyright rules, only sample items can be included as an attachment to the final printing and binding of this research (Appendices B and C). Should readers need to view a copy of the entire instrument, they should contact Counseling Psychologists Press, Inc. A more thorough description of the instrument and addendum questions follows.

#### *My Vocational Situation*

My Vocational Situation is a simple, self-reporting diagnostic form used to assess three aspects of career decision-making: 1) vocational identity; 2) occupational information; and 3) barriers. My Vocational Situation (MVS), created by John Holland et al. (1980), was used to measure the vocational identity of each subject. According to Holland, Daiger, and Power (1980a), most people complete the MVS in ten minutes or less. The MVS is an instrument that consists of three scales – Vocational Identity (VI), Occupational Information (OI), and Barriers (B). The scales were developed using a sample of 496 high school sophomores (185 males, 331 females) (Westbrook, 1985).

The VI scale consists of eighteen true-false questions. Holland, Gottfredson, and Power (1980) define vocational identity as “the possession of a clear and stable picture of one’s goals, interests, and talents” (p. 1191). A person’s score is the total number of

“False” responses. The more “False” responses, the more clear the vocational identity of the subject. The occupational information (OI) scale consists of four yes-no items to measure one’s occupational information needs (Lunneborg, 1985). The Barriers (B) scale consists of four yes-no items that address personal and external obstacles to career decision-making. The score for the OI and B scales, respectively, is the total number of “No” responses. The more “No” responses, the lesser the need for occupational information and the fewer perceived barriers for the subject.

The norms for the instrument are based on 824 subjects, including high school students, college students, and workers (Westbrook, 1985). Scale reliabilities for college students and workers were determined using the Kuder-Richardson 20 statistic. The reliabilities for male VI, OI, and B are .89, .79, and .45, respectively (Holland et al., 1980a; Holland et al., 1980b). For females, the VI, OI, and B reliabilities are .88, .77, and .65 respectively (Holland et al., 1980a; Holland et al., 1980b). Because the reliabilities of the OI and B scales are so low, the developers of the instrument suggest that these scales are more reflective of check lists to help students and career counselors identify potential external factors that are obstacles to achieving one’s career aspirations (Holland et al., 1980a).

#### *Supplemental Information Section*

To add to the depth of this study, the MVS instrument was supplemented with nine demographic questions (Appendix C). Questions 1-4 asked all subjects to identify their academic classification (freshmen, sophomore, junior, senior), gender, age, and race/ethnicity. Students indicating that the University of Kansas did not accept any academic credits from their prior institution (question #5) were not considered to be a

transfer and their data was not included in the data analysis. These nine questions were placed after the MVS scales because demographic questions can be threatening to some and could alter a subject's response if placed before the MVS scales.

#### Data Collection Procedure

The My Vocational Situation (1980) assessment was administered to all transfer students attending spring orientation at the University of Kansas, on January 21, 2004, at the beginning of the first Student-to-Student session. It was important to administer the assessment at the beginning of the session so that students' responses were not biased by the pre-advising activities. Additionally, this setting was chosen because the researcher wanted to eliminate, or minimize, potential parental bias. Prior to completing the survey, the Orientation Assistant read aloud the consent form while students followed along. The consent form clearly indicated that their participation was voluntary. Each participant was asked to sign a consent form (Appendix D), and these forms were collected separately from the MVS assessments to ensure confidentiality. Students were not asked to identify themselves either by name or student identification number on the survey because no follow up research was conducted.

Once all students had completed the instrument, Orientation Assistants were instructed to place all completed consent forms in one envelope and all completed MVS assessments into a separate envelope. They were then instructed to return the envelopes to the researcher. The researcher was not directly involved with the collection of data, so as to avoid any bias caused by the presence of the researcher.



## Data Analysis

Once all instruments were collected, each was reviewed to determine if each subject had answered all questions on the MVS scale. Surveys with incomplete responses on the MVS instrument were removed from the sample. Surveys with incomplete responses to the demographic questions remained in the sample as long as all MVS questions were answered. Additionally, any instruments in which subjects answered “No” to demographic question 5, thus indicating that they were not a transfer student as defined by the research, were removed from the data set. Lastly, it should be noted that the researcher did not test any hypotheses based on the number of credits accepted by the University of Kansas. This information was asked of students as a precursor to the following question regarding the number of credits earned at any institution prior to enrolling at the destination institution.

Upon separating usable surveys from those that were not, the data was entered into an SPSS file for analysis. Consistent with prior research using the MVS (Healy et al., 1990; Mauer & Gysbers, 1990; Holland et al., 1980), “True” and “Yes” responses were coded as “0,” while “False” and “No” responses were coded as “1.” With regard to the supplemental demographic questions, the responses were coded as scripted in the questions. Data for each subject were entered according to their response to each question. Though this study has a specific focus on the use of the VI scale to measure vocational identity, scores for all three scales were entered and aggregated for each subject. Doing so allowed for scale comparison as well as single item comparisons.

Holland, Gottfredson, and Power (1980) fully acknowledge that they did not attempt to obtain a representative sample when testing the MVS for validity. Instead they

were more interested in constructing a sample with a great range of age, occupations, and training levels. As such, it was important to develop local norms to compare the findings of the sample with the reliability established by the authors. Local norms for this study were developed using the coefficient alpha, which is equivalent to the Kuder-Richardson 20 (KR20) coefficient used by the MVS authors.

In conducting analyses, the independent variables in this study were academic status, age, gender, ethnicity, type of transferring institution, and number of times one had transferred. The dependent variable was vocational identity as measured by the MVS. Conducting analyses using descriptive statistics was useful in comparing responses of subgroups with regard to Vocational Identity, Occupational Information, and Barriers. Specifically, frequency distributions were conducted to determine how many subjects represented each of the demographic variables. This information was later used to identify which variables could be further analyzed based on Upcraft and Schuh's (1996) recommendation that a minimum of thirty-five subjects for each variable are needed to conduct statistical analysis. Other descriptive statistics included means and standard deviations. Means were run to identify average scores on the VI, OI, and B scales in combination with the proposed demographic questions. Standard deviations revealed variability in scale scores by demographic variables.

Inferential statistics used in this research study include t-tests, analysis of variance (ANOVA), and non-parametric chi-square. For the purposes of this study, significance is measured at  $p < .05$ . Since no students identified as transgendered, hypothesis 1a was analyzed using t-tests to determine if there was significant difference in vocational identity and gender among transfer students. Hypotheses 1b and 1c were analyzed using

the ANOVA statistic to test for differences in vocational identity with regard to academic classification and age. Hypothesis 1d was analyzed using t-tests to determine if there was a significant difference in vocational identity and race/ethnicity. Hypothesis 2 was tested using the ANOVA statistic. Hypothesis 3 was tested using the t-test statistic since subjects only identified as transfers from two-year and four-year colleges and universities. Hypothesis 4 was tested using the ANOVA statistic. Lastly, Hypothesis 5 was tested using the one-sample t-test statistic that allowed the researcher to compare the MVS sample means of the VI, OI, and B scales with the observed transfer student sample means of the VI, OI, and B scales.

Additionally, the Vocational Identity scale was analyzed by clusters - anxiety, confidence, self-assessment, and occupational information - based on prior research by Mauer and Gysbers (1990). They identified these clusters using the Verticle Icicle Plot based on Ward's agglomerative hierarchical cluster technique (p. 157). Similar to their research, a coefficient alpha was calculated to compare the variance of each cluster to that of the total VI score.

### Limitations

There are a few limitations to this study. First, the use of convenience sampling does not permit the findings of this study to be generalized to larger populations. However, the findings of this study could be a catalyst for future research that could employ random sampling of students. Another limitation of convenience sampling, specific to this study, is the fact that students admitted to the University of Kansas are not required to attend orientation, therefore it was not possible to sample the entire transfer student population.

Aside from the population, the survey instrument also presented limitations. There are two limitations to the use of the MVS. First, responses are self-reported by students. Second, the use of nominal scales on the MVS asked students to pick one response over another, even though their responses may not completely represent their feelings about vocational identity. Lastly, some students did not complete both sides of the survey. As a result, their survey was either removed from the sample or the researcher was not able to use the survey to conduct analyses on demographic variables.

The following chapter reveals the findings of this study. The chapter includes a review of the sample population, data they provided, and key findings based on the analyses conducted between the independent and dependent variables. The chapter also includes the local norms established, specific to the transfer student population, and how those norms compare to those established by the authors of the MVS.

## CHAPTER IV - RESULTS

The overall purpose of this study was to understand the vocational identity of transfer students using My Vocational Situation (MVS) (Holland et al., 1980). Primarily, this study sought to determine if any differences existed in vocational identity of students transferring to a large, public Research I institution, based on age, gender, ethnicity, and academic classification. This study also sought to address questions of vocational identity difference based on the type of transferring institution, number of completed credits, and the number of times a student had transferred. Lastly, this study shows whether normative data established by the authors of the MVS assessment significantly differ for the sample population. To assess the differences mentioned, the following hypotheses were tested:

### *Hypothesis 1:*

- a:* There is no significant difference in vocational identity among transfer students with regard to gender.
- b:* There is no significant difference in vocational identity among transfer students based on academic classification (i.e. freshman, sophomore, junior, senior).
- c:* There is no significant difference in vocational identity among transfer students with regard to age.
- d:* There is no significant difference in vocational identity among transfer students with regard to race/ethnicity.

*Hypothesis 2:* There is no significant difference in vocational identity of transfer students and the number of credits earned.

*Hypothesis 3:* There is no significant difference in vocational identity of transfer students based on the type of institution from which a student transferred.

*Hypothesis 4:* There is no significant difference in vocational identity of transfer students based on the number of times a student has transferred institutions.

*Hypothesis 5:* There is no meaningful difference in MVS normative data of sampled transfer students and the normative data established by the MVS authors.

This chapter presents results of the hypotheses above in response to the proposed research questions in the previous chapter. The chapter will begin with a description of the sample population followed by MVS reliability data. The results of the statistical analyses for each hypothesis will be presented thereafter. The chapter will conclude with ancillary analyses, which help to inform this study.

### Sample Characteristics

The sample of this study consisted of 331 transfer students who self-selected to attend a one-day spring orientation program at the University of Kansas, a large public Research I institution in the Midwestern region of the United States. Of those in attendance, 266 students attempted to complete the survey. Usable surveys yielded a final sample size of  $n=253$ .

Tables 4.1a through 4.1d represent a demographic profile of transfer students that participated in this study. Of those returning usable surveys, 129 were female (51%), while the remaining 124 transfer students were male (49%). Although respondents' ages varied from 18 to 61 years of age, frequency analyses showed that the sample consisted mostly of traditional-aged college students; 205 students (85.8%) indicated that they were 18 to 25 years of age (Table 4.1a). Similarly, students between the ages of 18 and 25

comprise 93% of the fall 2003 entering class (University of Kansas Office of Institutional Research, 2003).

Table 4.1a

*Demographic Profile of Respondents by Gender and Age (n = 253)*

	Sample Frequency	Sample Percent	Cumulative Percent
<b>Gender</b>			
Male	124	49.0	49.0
Female	129	51.0	100.0
<b>Age*</b>			
18-19	83	34.7	34.7
20	51	21.3	56.1
21	35	14.6	70.7
22-25	36	14.3	85.0
26+	34	15.0	100.0
Missing	14		

\*Note. The oldest subject in the sample is 61 years of age.

Additionally, 223 White students represented a majority of the sample (81.5%), while the remainder is represented by three African-American (1.2%), six Asian or Pacific Islanders (2.4%), four American Indian or Alaskan Native (1.6%), three Hispanic/Latino (1.2%), and nine multi-racial or multi-ethnic (3.6%) transfer students. Four respondents indicated that their race was not included. These demographics are comparable to the current enrollment population of the campus in this study. According to fall 2003

enrollment statistics by race, African-American/Black, Asian, American Indian, and Hispanic students represent 3.0%, 3.6%, 1.2%, and 3.1%, respectively (University of Kansas Office of Institutional Research, 2003) (see Table 4.1b).

Table 4.1b

*Demographic Profile of Respondents by Ethnicity (n = 253)*

	Sample Frequency	Sample Percent	Cumulative Percent
Race/Ethnicity			
African American/Black	3	1.2	1.2
Asian/Pacific Islander	6	2.4	3.6
American Indian/ Alaskan Native	4	1.6	5.2
Hispanic/Latino	3	1.2	6.3
White/Caucasian	223	88.5	94.8
Multi-racial/ Multi-ethnic	9	3.6	98.4
Race Not Included	4	1.6	100.0
Missing	1		

The sample consisted of 70 freshman (28.1%), 97 sophomore (39%), 68 juniors (27.3%), and 11 senior (4.4%) transfer students. Almost one-fifth of students surveyed had completed 13-24 credit hours (see Table 4.1c).



Table 4.1c

*Demographic Profile of Respondents by Academic Classification and Completed Credit Hours (n=253)*

	Sample Frequency	Sample Percent	Cumulative Percent
<b>Academic Classification</b>			
Freshman	70	28.1	28.1
Sophomore	97	39.0	67.1
Junior	68	27.3	94.4
Senior	11	4.4	98.8
Other	3	1.2	100.0
Missing	4		
<b>Completed Credit Hours</b>			
1-12 hours	16	6.3	6.3
13-24 hours	49	19.4	25.8
25-36 hours	31	12.3	38.1
37-48 hours	33	13.1	51.2
49-60 hours	34	13.5	64.7
61+ hours	89	35.3	100.0
Missing	1		

One hundred twenty-seven (53.8%) students transferring from two-year colleges were represented in this study. Additionally, one hundred eight transfer students from four-year institutions were represented. Overwhelmingly, 176 (70.1%) students in this study had only transferred once, whereas 52 (20.7%) had transferred twice and 23 (9.2%) had transferred three times or more.

Table 4.1d

*Demographic Profile of Respondents by Transferring Institution and Number of Times Transferred (n=253)*

	Sample Frequency	Sample Percent	Cumulative Percent
Transferring Institution			
2-year/Comm. College	127	53.8	53.8
4-yr College/ University	108	45.8	99.6
Other	1	00.4	100.0
Missing	17		
Number times transferred			
1 time	176	70.1	70.1
2 times	52	20.7	90.8
3+ times	23	9.2	100.0
Missing	2		

## Reliability of the My Vocational Situation Instrument

Reliability values for the MVS, using the Kuder-Richardson 20 (KR 20) statistic, is based on a broad sample of 824 individuals, consisting of high school students, college students, and adults (Holland et al., 1980). Further, scale reliabilities for college students and workers were aggregated into one measure. Since this study used the MVS to specifically measure the vocational identity of college transfer students, it was anticipated that values might differ for this sample population. As suggested by Holland et al. (1980), local norms were established for this study. Since the development of the MVS, SPSS software no longer includes the KR 20 statistic. Instead, the Cronbach alpha statistic was deemed to be an appropriate equivalent to conduct the reliability analyses. The Cronbach alpha tests compared favorably with the KR 20 results from Holland et al. (1980) on all three MVS scales. These findings speak to the fact that the Cronbach alpha statistic is an appropriate equivalent to conduct reliability analyses. Reliability coefficients are presented in Table 4.2.

Table 4.2

*Reliability of MVS Normative Data vs. Transfer Student Local Norm Sample Data*

Norm MVS Reliabilities for College Students and Workers									
	Males					Females			
	N	KR 20	X	SD		N	KR 20	X	SD
VI	291	.89	16.54	5.32		301	.88	14.86	5.36
OI	289	.79	2.63	1.43		300	.77	2.01	1.47
B	288	.45	3.35	.86		300	.65	3.16	1.06

College Transfer Student Sample									
	Males					Females			
	N	Alpha	X	SD		N	Alpha	X	SD
VI	124	.84	11.87	4.38		129	.88	12.43	4.81
OI	124	.74	1.83	1.46		129	.76	1.55	1.41
B	124	.60	3.40	.95		129	.62	3.48	.91

## Results of the Hypotheses

One of the purposes of this study was to determine how vocational identity differs among sub-populations of transfer students. Sub-populations by academic classification, gender, age, and race/ethnicity were measured separately. Hypothesis 1a was tested using t-tests to compare vocational identity among men and women. Hypotheses 1b and 1c were tested using the ANOVA statistic to compare vocational identity by academic classification and age, respectively. Hypothesis 1d was tested using the t-test to compare

two ethnic/race groupings. For the purposes of this study, significance was measured at the  $p < .05$  level.

*Hypothesis 1a:* There is no significant difference in vocational identity among transfer students with regard to gender.

*Result 1a:* The mean vocational identity score for male transfer students is 11.8710, while the mean score for women is 12.4341. The t-test analysis did not reveal a significant difference in means ( $p = .332$ ) with regard to vocational identity and gender. Therefore, the null hypothesis could not be rejected (see Table 4.3a).

Table 4.3a

*Vocational Identity of Transfer Students by Gender*

	Total	Mean Score	Standard Deviation	t-statistic ( <i>df</i> ) p-value
Male	124	11.8710	4.3839	-.972 (251) $p = .332$
Female	129	12.4341	4.8118	

*Hypothesis 1b:* There is no significant difference in vocational identity among transfer students based on academic classification (i.e. freshman, sophomore, junior, senior).

*Result 1b:* The mean vocational identity score for freshman ( $\mu=11.4857$ ), sophomore ( $\mu=12.4330$ ), juniors ( $\mu=12.6471$ ), and senior ( $\mu=12.2727$ ) transfer students did not reveal any statistically significant difference ( $p = .367$ ). The null hypothesis could not be rejected (see Table 4.3b).

Table 4.3b

*Vocational Identity of Transfer Students by Academic Classification*

	Total	Mean Score	Standard Deviation	F-statistic (df) p-value
Freshman	70	11.4857	4.8026	1.080 (4) p = .367
Sophomore	97	12.4330	4.5275	
Junior	68	12.6471	4.5079	
Senior	11	12.2727	4.6924	

*Hypothesis 1c:* There is no significant difference in vocational identity among transfer students with regard to age.

*Result 1c:* Age responses were aggregated into five ranges. The first four ranges represented traditionally aged students, while the last range was intended to represent non-traditionally aged students. The ANOVA analysis did not find a significant difference in vocational identity of transfer students by age ( $p = .422$ ). Therefore, the null hypothesis could not be rejected (see Table 4.3c).

*Hypothesis 1d:* There is no significant difference in vocational identity among transfer students with regard to race/ethnicity.

*Result 1d:* Considering White students were overrepresented in the sample, the t-test was used to determine difference in vocational identity among non-White ( $n=25$ ) and White ( $n=223$ ) transfer students. The t-test analysis did not find any statistical difference

( $p = .926$ ) in vocational identity and race/ethnicity of transfer students. The null hypothesis could not be rejected (see Table 4.3d).

Table 4.3c

*Vocational Identity of Transfer Students by Age*

	Total	Mean Score	Standard Deviation	F-statistic ( <i>df</i> ) p-value
Age = 18-19	83	11.7470	4.6456	.975 (4) $p = .422$
Age = 20	51	12.0588	4.6105	
Age = 21	35	11.9714	4.6049	
Age = 22-25	36	12.5278	5.0227	
Age = 26 or older	34	13.5294	4.2300	

Table 4.3d

*Vocational Identity of Transfer Students by Race/Ethnicity Grouping*

	Total	Mean Score	Standard Deviation	t-statistic ( <i>df</i> ) p-value
Non-white	25	12.1200	4.9102	-.093 (246) $p = .926$
White	223	12.2108	4.5831	

*Note.* All students of color were aggregated into one category since individually each category contained less than 6 subjects.

The next three hypotheses addressed the academic history and transfer patterns of the sample population. Differences in vocational identity based on credits earned and the

number of times transferred were tested using the one-way ANOVA statistic. The type of transferring institution was tested using t-tests. None of the three analyses yielded significant differences at  $p < .05$ .

*Hypothesis 2:* There is no difference in vocational identity and the number of credits earned by a transfer student.

*Result 2:* The survey instrument asked students to identify how many credits they had earned according to ranges predetermined by the researcher. ANOVA analysis did not show any significant difference ( $p = .440$ ) in vocational identity and the number of credits earned by transfer students. The null hypothesis could not be rejected (see Table 4.4).

Table 4.4

*Vocational Identity of Transfer Students by Completed Credits*

	N	Mean	SD	F-statistic (df) p-value
1-12 credits	16	12.0000	4.8442	.964 (5) p = .440
13-24 credits	49	12.2449	4.4278	
25-36 credits	31	10.9677	5.1087	
37-48 credits	33	12.0606	4.7562	
49-60 credits	34	11.4706	4.4055	
61+ credits	89	12.8427	4.5274	

*Hypothesis 3:* There is no significant difference in vocational identity of transfer students based on the type of institution from which a student transferred.



*Result 3:* Mean vocational identity scores for students transferring from a two-year community college ( $\mu = 11.6929$ ) did not significantly differ from students transferring from a four-year college or university ( $\mu = 12.2778$ ) ( $p = .332$ ). The null hypothesis could not be rejected (see Table 4.5).

Table 4.5

*Vocational Identity of Transfer Students by Type of Transferring Institution*

	N	Mean	SD	t-statistic (df) p-value
2-year comm. college	127	11.6929	4.7048	-.972 (233) p = .332
4-year college/ University	108	12.2778	4.4718	

*Hypothesis 4:* There is no significant difference in vocational identity among transfer students based on the number of times a student has transferred institutions.

*Result 4:* Mean vocational identity scores for students who had transferred once ( $\mu=11.8352$ ), twice ( $\mu=12.4038$ ), or three times or more ( $\mu=13.6522$ ) did not show any statistical difference ( $p = .181$ ). The null hypothesis could not be rejected (see Table 4.6).

Table 4.6

*Vocational Identity of Transfer Students by Number of Times Transferred*

	N	Mean	SD	F-statistic (df) p-value
1 time	176	11.8352	4.7161	1.719 (2) p = .181
2 times	52	12.4038	3.9718	
3+ times	23	13.6522	4.9139	

The final hypothesis sought to determine if MVS normative data significantly differed from that observed in the sample population. Although all other hypotheses focused only on the 18-item Vocational Identity (VI) scale, the MVS also consists of a four-item Barriers (B) and a four-item Occupational Information (OI) scale. One-sample t-tests conducted to test the hypothesis for both male and female students indicate that each gender shows a significant difference on one or more of the MVS scales at  $p \leq .001$ . However, the reported results for the OI and B scales should be interpreted with great caution, as reliability tests for both the MVS sample population (Holland et al., 1980) and the transfer student population revealed low reliability values (Table 4.2). Specifically, the reliability values for the B scale of the MVS sample are .45 and .65 for males and females, respectively. Comparatively, the coefficient alpha values for B scale of the transfer student population are .60 and .62 for males and females, respectively. Although the results for both scales are presented, their reliability values do not provide a rigorous source of information.

*Hypothesis 5:* There is no meaningful difference in MVS normative data of sampled transfer students and the normative data of college students established by the MVS authors.

*Result 5:* The one-sample t-tests conducted for male transfer students showed significant difference on the Occupational Information (OI) scale, ( $p = .000$ ), indicating that male transfer students had more need for occupational information than did the MVS normative male college sample. Female transfer students showed a significant difference on the Vocational Identity (VI) scale from the respective MVS score for college females ( $p = .000$ ), implying that the female transfer students sampled have a stronger sense of

vocational identity than female college students in the MVS normative sample.

Additionally, female transfer students also showed a significant difference on the Barriers (B) scale ( $p = .001$ ), meaning they perceived fewer barriers to attaining their career goals than did female college students in the MVS normative sample. The null hypothesis is rejected (see Table 4.7).

Table 4.7

*MVS Scales Normative Data vs. Transfer Student Sample Population*

	MVS Mean (N)	MVS SD	Males		t-statistic ( <i>df</i> ) p-value
			Sample mean ( <i>n</i> )	Sample SD	
VI	11.25 (121)	4.14	11.87 (124)	4.38	1.577 (123) $p = .117$
OI	2.39 (132)	1.52	1.83 (124)	1.46	-4.200 (123) $p = .000^{**}$
B	3.35 (132)	.83	3.40 (124)	.95	.622 (123) $p = .535$
	MVS Mean (N)	MVS SD	Females		t-statistic ( <i>df</i> ) p-value
			Sample mean ( <i>n</i> )	Sample SD	
VI	10.13 (122)	4.23	12.43 (129)	4.81	5.439 (128) $p = .000^{**}$
OI	1.77 (134)	1.42	1.55 (129)	1.41	-1.757 (128) $p = .081$
B	3.22 (134)	.94	3.48 (129)	.91	3.250 (128) $p = .001^{**}$

\*\* Significance level at  $p \leq .001$

### Additional Analyses

As mentioned previously, the MVS consist of three scales: the Vocational Identity (VI), the Occupational Information (OI), and the Barriers (B) scales. However, Holland et al. (1980) recommend that, because the reliability of the OI and B scales are low, these two constructs be treated more like checklists than scales. In related research, Mauer and Gysbers (1990) further divided the VI scale into four separate clusters. Their study is based on the idea that vocational identity is not a single construct, but rather a complex one consisting of four dimensions (anxiety, confidence, self-assessment, and occupational information). Consistent with their research, cluster analyses were performed to identify any significant differences with regard to the vocational identity (VI) scale (Appendix H). The anxiety cluster grouped five questions from the VI scale (#6, 8, 9, 12, and 18). The confidence cluster grouped six questions (# 1, 2, 3, 7, 10, and 13). Questions 4, 5, 15, and 16 represented the self-assessment cluster. Lastly, the occupational information cluster included questions 11 and 14. Using data from this study, reliability coefficients were determined for each cluster as defined by Mauer and Gysbers (1990) (Table 4.8).

Table 4.8

*Reliability of Vocational Identity Scale Clusters (n=253)*

Cluster	N of Items	Alpha	X	SD
Anxiety	5	.73	3.5455	1.5644
Confidence	6	.78	3.7312	2.0507
Self-Assessment	4	.51	3.0079	1.0911
Occupational Information	2	.50	1.2016	.7986

For this study, nonparametric chi-square tests were conducted to test whether observed scores from the transfer student sample differed significantly from expected scores obtained from Mauer and Gysbers (1980) for the values within each of the clusters (Table 4.9). Due to the low reliability values of the Self-Assessment ( $\alpha = .51$ ) and Occupational Information ( $\alpha = .50$ ) clusters, nonparametric chi-square results are not reported for these clusters. The results of the nonparametric chi-square test for the Anxiety cluster show that the responses of transfer students are almost completely opposite of those of the entering freshman sample used in the Mauer and Gysbers (1980) study. The negatively skewed frequency distribution seems to indicate that many transfer students in this study were experiencing some form of anxiety related to choosing a career at the time they completed the survey (Figure 4.10). Sixty (23.7%) transfer students answered true to four out of five questions in the Anxiety cluster, while an additional 97 (38.3%) transfer students indicated “True” responses on all five questions. Cumulatively, 157 (62.1%) of the sample population answered “True” to a majority of the questions.

The nonparametric chi-square test showed a significant difference on the Confidence cluster between the responses of the transfer student population and the freshman students sampled in the Mauer and Gysbers (1980) study, though the transfer student sample produced a positively skewed frequency distribution (Figure 4.11). The transfer student sample produced more observed responses (79) to all six questions of the Confidence than expected number of responses (52.7), based on the results from Mauer and Gysbers. Almost one-third of the sample population indicated they were uncertain about their vocational identity at the time they completed the MVS.

Table 4.9

*Nonparametric Chi-square Results for Anxiety and Confidence Clusters (n=253)*

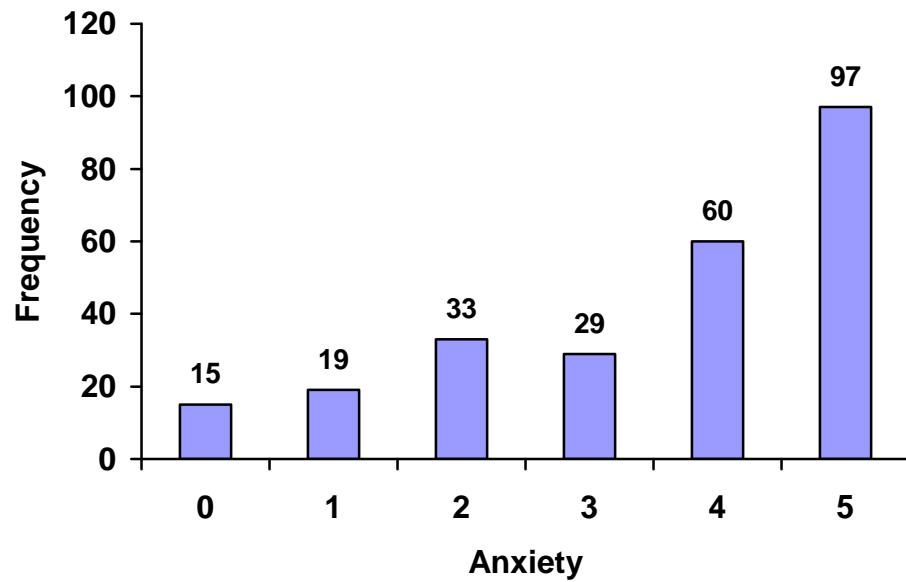
Cluster	Sample	Mauer & Gysbers <sup>a</sup>	Sample	Significance (df)
Responses	Observed N	Observed N	Expected N	
Anxiety				
0	15	1598	92.3	.000 (5)
1	19	806	46.6	
2	33	618	35.7	
3	29	528	30.5	
4	60	487	28.1	
5	97	341	19.7	
Confidence				
0	20	542	31.3	.000 (6)
1	28	473	27.3	
2	29	490	28.3	
3	39	524	30.3	
4	23	669	38.7	
5	35	768	44.4	
6	79	912	52.7	

<sup>a</sup> From "Identifying Career Concerns of Entering University Freshman Using *My Vocational Situation*," by

E.B. Mauer & N.C. Gysbers, 1990, *Career Development Quarterly*, 39, p. 61.

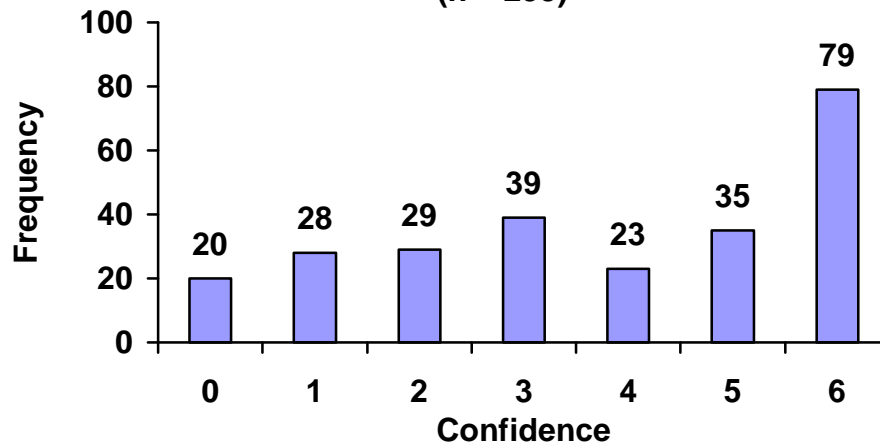
*Note.* Each response value represents the number of questions within each cluster that were answered "True" by participants.

**Figure 4.10**  
**Anxiety Cluster Frequency Distribution**  
( $n = 253$ )



*Note.* Zero on the Anxiety cluster represents 15 transfer students who marked none of the items true while five represents 97 transfer students who marked all items true.

**Figure 4.11**  
**Confidence Cluster Frequency Distribution**  
( $n = 253$ )



*Note.* Zero on the Confidence cluster represents 20 transfer students who marked none of the items true while six represents 79 transfer students who marked all items true.

## Summary

The results presented in this chapter reveal that only one of the null hypotheses tested could be rejected because a statistically significant difference was found at the  $p < .05$  level. More specifically, Hypothesis 5 was rejected because the one-sample t-test revealed some significant differences in the MVS college student normative data and the local norms of the transfer student sample. However, this chapter does not explain or interpret the findings presented in order to make meaning or understand their contribution to literature related to the vocational identity of transfer students. The following chapter will provide a more in depth discussion on these findings and their practical relevance.



## CHAPTER V - DISCUSSION

This study examined the vocational identity of transfer students. The study sought to determine if vocational identity of transfer students differed by demographic variables (i.e., age, gender, race/ethnicity, and academic classification). Secondary purposes of this study sought to examine whether vocational identity of transfer students differed by number of credits earned, type of transferring institution, and the number of times one transferred. Lastly, this study developed local MVS norms for the transfer student population in an effort to compare the local norms with those established by the authors of the MVS (Holland et al., 1980).

A review of literature of career development theories, transition theory, and trends and issues of transfer students led the researcher to formulate the following hypotheses:

*Hypothesis 1:*

- a:* There is no significant difference in vocational identity among transfer students with regard to gender.
- b:* There is no significant difference in vocational identity among transfer students based on academic classification (i.e. freshman, sophomore, junior, senior).
- c:* There is no significant difference in vocational identity among transfer students with regard to age.
- d:* There is no significant difference in vocational identity among transfer students with regard to race/ethnicity.

*Hypothesis 2:* There is no significant difference in vocational identity of transfer students and the number of credits earned.

*Hypothesis 3:* There is no significant difference in vocational identity of transfer students based on the type of institution from which a student transferred.

*Hypothesis 4:* There is no significant difference in vocational identity of transfer students based on the number of times a student has transferred institutions.

*Hypothesis 5:* There is no meaningful difference in MVS normative data of sampled transfer students and the normative data established by the MVS authors.

A survey consisting of the My Vocational Situation (Holland et al., 1980) instrument and nine demographic questions was administered to 331 transfer students attending a one-day spring 2004 orientation session during a pre-advising workshop, thus employing a convenience sampling method. Two hundred and fifty-three of 269 returned surveys were determined to be usable for the purposes of this research. Descriptive statistics, t-tests, and ANOVA analyses were conducted to test the stated hypotheses using SPSS 10.0 (student version). Reliability tests for the MVS were also conducted. Additionally, nonparametric chi-square analyses were conducted to test the Vocational Identity Scale clusters. Statistical significance ( $p < .05$ ) was found on one of the five tested hypotheses.

This chapter provides a discussion of the findings with regard to the research questions presented in the previous chapter. After a discussion of the researcher's insight, limitations associated with this study, implications for practice, and suggestions for future research will be presented.

## Summary of Results

### *Vocational Identity by Academic Classification, Gender, Age, and Race*

Male and female transfer students were equally represented in this study. On average, the subjects of this study were White, sophomore, 22 years old, and had completed at least 36 credits. Though some characteristics were similar, these findings are not consistent with Fredrickson (1998) who found the average transfer student to be a White woman, 26 years old, who had earned an average of 22 credits. The difference in age between these two sample populations seems to indicate that students in this study pursued higher education immediately following high school. Additionally, the fact that transfer students in this study had completed more credit hours than transfer students in Fredrickson's (1998) study lends some credibility to the notion that students entering community colleges are doing so with the intent to transfer to a degree-granting institution. These findings seem to suggest that community colleges are appealing more to traditionally aged college students, whereas in the past, community colleges had been considered an entry point suited more for non-traditionally aged college students and adult learners.

None of the four hypotheses that tested vocational identity by academic classification, gender, age, and race revealed any significant differences; therefore none of the null hypotheses could be rejected. However, the results do show some trends, both expected and unexpected. Following is a discussion of the findings of each of the first four hypotheses and speculations as to why no significant differences were found in this study.

Statistical analyses did not reveal any significant differences in vocational identity (VI) based on academic classification, therefore, the null hypothesis could not be rejected. This is consistent with Poe's (1991) study of undergraduate psychology students, which attempted to determine if MVS scores for students in the same academic discipline were positively correlated with academic classification. Poe's study reports that the VI score of undergraduate psychology majors was significantly correlated with academic classification. However, her study did not find that mean VI scores increased as academic classification increased (i.e., from freshman to sophomore status). Poe's (1991) research only yielded a significant finding on the occupational information (OI) scale, with female students reporting more need for occupational information than men (p. 251). Since Holland et al. (1980) suggests that the OI and Barriers (B) scales resemble checklists more than scales, the results of the OI scale in Poe's study should be interpreted with caution.

It is helpful to discuss the lack of significant findings. Unequal cell sizes might be one reason why no significant differences were found in vocational identity of transfer students based on their academic classification. Of the four different academic classifications, only eleven transfer students identified as seniors. On the other extreme, ninety-seven sophomores were represented in this study, while only seventy and sixty-eight freshmen and juniors, respectively, were represented. Had all academic classifications been comparably represented, it is possible that the results might have been different, especially in the case of senior transfer students.

Additionally, it is helpful to understand the lack of significance in context of the different stages proposed by career development theorists (Ginzberg, 1984; Tiedeman &

O'Hara, 1963; Super, 1957; Ginzberg et al., 1951; Parsons, 1909). Parsons' (1909) trait and factor theory suggests that individuals are attracted to occupations that are congruent with the self and the occupational demands. To this end, an individual must have a clear understanding of their interests, values, skills, abilities, and world of work knowledge. Similarly, Ginzberg et al. (1951) discuss several periods in their theory of occupational choice. Specific to the college student population, the tentative period is characteristic of one acknowledging his or her interests, abilities, values, and knowledge of the world of work. The same student might find oneself in the first stage of Tiedeman and O'Hara's (1963) two major stages – anticipating a choice. It is in this stage that an individual might engage in four phases: exploration, crystallization, choice, and clarification. Despite the academic classification of any one transfer student in this study, he or she likely experienced at least one, if not all, of these phases as they participated in orientation. Having completed the MVS instrument at this particular moment may have found all students in relatively similar situations, where being a new student in an unfamiliar setting might have been more prominent than each transfer student's academic classification, therefore, finding no statistically significant differences in vocational identity.

As a student progresses from the freshman academic class standing toward graduation, the college experience exposes that student to increasingly specialized academic content and, perhaps, experiential learning opportunities and leadership involvement. Such experiences could have an impact on the strength of one's vocational identity. When applying this notion to a college student sample, it might seem logical to expect that the more a student is exposed to these developmental experiences, the more

focused he or she will become in vocational goals, and thus vocational identity will strengthen during college. Super (1957) suggests that students would engage in these experiences during their college years, which overlaps with the exploration stage of his life-span theory. In line with the exploration stage, internships, leadership roles, and academic coursework help individuals clarify their goals and aspirations, preference their vocational interests, and implement career objectives. Having an understanding of these substages is beneficial, however the MVS does not allow the researcher to determine in which substage the respondents are engaged, thereby making it difficult to determine and suggest more specific experiential opportunities that might help a student increase their vocational identity.

When considering the college student population, age and academic classification are sometimes thought of as interchangeable. For the purposes of this study, the age responses were aggregated into five ranges. The first four ranges (18-19, 20, 21, and 22-25) are representative of Super's (1957) exploration stage, and traditionally aged students (18-25 years). The fifth range represents Super's establishment stage, and non-traditional aged students (26 years and older). The age demographics of respondents are similar to those of the entire University of Kansas (KU) campus, with 85.8% (205) of respondents being between the ages of 18 and 25, compared to 93% of the fall 2003 entering class between the same ages (University of Kansas Office of Institutional Research, 2003).

No significant differences were found in VI scores of transfer students by age group, thus the null hypothesis could not be rejected. From a statistical standpoint, the respective cell size of these age groups might help to explain why the study lacks significant difference on this variable. Fifty-one students self-reported to be 20 years old,

compared to only 35 students reporting to be 21 years old. The relatively small cell sizes of the '22-25' (n=36) and '26 and older' (n=34) age ranges, compared to the larger cell sizes of the '18-19' and '20' age ranges, make it difficult to draw any significant conclusions about the lack of statistical significance.

One theoretical explanation for why no significant differences in VI score existed could be linked to Super's (1957) Life-Span theory. Super (1957) suggests that individuals between 15 and 25 years are in an exploratory stage. Within this stage are three substages: crystallizing, specifying, and implementing. Transfer students that participate in formal orientation programs upon entering the destination institution are asked to make several decisions in a short amount of time, and often with limited access to professional academic advisors. Depending on the number of lower-level courses a student has fulfilled, they may be required to declare a major during the orientation program. If a transfer student had not done so before attending the orientation program, the decisions they were faced with required them to clarify their goals and aspirations during orientation, before enrolling in courses. For students needing to declare an academic major, a forced decision may have confronted transfer students with the need to preference their vocational interests. All of these actions are characteristic of the exploratory stage.

Lucas et al. (1988) found that adults seeking career counseling only had slightly higher vocational identity scores than university freshmen, though the difference was not found to be statistically significant. The findings of this study show similar results when comparing the '26 and older' range with the four younger age ranges. Respondents identified in the '26 and older' range included subjects up to 61 years old. Super (1957)

suggests that the establishment stage occurs between the ages of 25 and 45 years. In addition, the maintenance stage occurs between the ages of 45 and 65 years. It is during the establishment stage that the main goal of the individual is to secure employment, thus beginning their career life (Super, 1957). The presence of these subjects in the sample population might suggest a few things. First, they may be returning to higher education to gain more skills to advance in their current career to achieve a higher level of skill or competency, which Super (1957) refers to as updating. Second, these individuals may have had life circumstances that delayed their entry into higher education. Or, third, they could be pursuing education that would enable them to start a new career. Again, this study does not capture such information, but one might speculate that these students are either changing careers or made the personal decision to spread their pursuit of a college education out over time, perhaps intermittent with an existing career or family obligations. In a positive respect, students of this age demographic (45 to 65) most likely have had their vocational interests validated by their life and work experiences. Conversely, these students may have had work or life experiences that they did not find completely fulfilling and therefore, their decision to attend college may be an effort to gain skills to change career paths.

Super's (1957) theory suggests that all individuals will make a decision to retire and pursue more personal interests. However, the theory does not specify an age at which this transition occurs. In fact, Super (1957) fully acknowledges that the age at which this stage occurs is different for each individual. Similarly, the theory addresses the notion that individuals may not progress through each of the stages as prescribed. With this in mind, it is conceivable that the ages of each stage may have become blended in the



decades since the development of this theory. For example, according to Super's theory a 32-year-old transfer student participating in this study typically would be in the establishment stage. However, this transfer student might be returning to school to explore a new career path, thereby engaging in the exploration stage. On the other hand, this same student might be returning to school to update his or her career skills, which is characteristic of the maintenance stage generally occupied by individuals between the ages of forty-five and sixty-five. Therefore, while Super's (1957) theory is one that can be used to interpret career development research, the researcher entertains the idea that engagement in one of the life-span stages may not be mutually-exclusive, nor is age an explicit indicator of the stage in which an individual is engaged.

Analysis of the VI scale by gender did not reveal any significant difference; therefore the null hypothesis could not be rejected. In a study conducted by Lucas et al. (1988), it was hypothesized that women would have lower VI scores than men. In part, they based their hypothesis on the findings of the MVS normative data established using a population of college students with an equal ratio of men and women (Holland et al., 1980). However, the results of the study conducted by Lucas et al. (1988) showed no significant difference in VI scores between male and female entering college freshmen students, thus lending credence to the findings of this study. Given that both genders were equally represented in this study's sample, the researcher can only speculate that any combination of the demographic data captured, and perhaps some not captured, would provide a rationale to draw an informed conclusion.

The lack of adequate representation of ethnic students in the study makes it difficult to draw any relevant conclusion about the impact ethnicity may have on

vocational identity. The results of the statistical analyses, comparing 223 white students and 25 students with ethnic identities, showed no significant differences in vocational identity by ethnicity. It is likely that a more representative sample of ethnic students might have yielded different results, given the findings of prior research (Teng et al., 2001; Arbona & Novy, 1991; Leong, 1991; Lucas et al., 1988). As such, it is not possible to determine if any of the findings of prior research would apply to the ethnic transfer students in this study. Albeit ambiguous, to suggest that the findings of prior research would apply to the ethnic students in this population without statistical evidence would be inappropriate. Likewise, to suggest that the findings would not apply would be negating the importance of cultural factors specific to each ethnic group and how those factors impact vocational identity and career decision-making. For instance, Kodama et al. (2002) found that Asian Americans have more dependent career decision-making styles that may be explained partially by the influence of the traditional Asian family and cultural values. Therefore, despite the lack of significance in this study, ethnicity should remain an important aspect of research regarding vocational identity.

#### *Vocational Identity by Completed Credits*

The findings of this study showed no meaningful difference in mean VI scores with regard to the number of credits earned by transfer students. In fact, there was no directional consistency in mean scores or standard deviations. Put another way, VI scores did not consistently increase, nor did deviations from the mean consistently decrease, with a progressive increase in the number of credits completed. One might have expected there to be a positively skewed trend increase in VI score with an increase in credits earned. The lack of adequate representation for each of the credit ranges might be the

most evident explanation of the findings of this study, thus resulting in a Type 2 statistical error. Only two of the six cells consisted of 35 or more subjects, the minimum needed to conduct statistical analyses as recommended by Schuh and Upcraft (1996).

Another explanation for the lack of significance in vocational identity of transfer students and number of credits completed may lie in the type of coursework completed. Although this information was not specifically collected, most students take up to 60 credit hours of general education requirement courses before taking courses within a specific professional major. General education courses tend to be exploratory in nature, not requiring students to subscribe themselves to one major or another. As such, it appears that only 35% (89) of transfer students in this study had earned more than 60 credits. Still, having completed more than 60 credit hours does not guarantee that those students had chosen a major or specific occupation. Additionally, a transfer student in the exploratory stage of Super's (1957) Life-Span theory could transfer with credits that may not apply to their anticipated course of study upon enrolling at the destination institution. For example, if a student transferred from another four-year institution and had completed 60 hours toward a music degree, it is likely that not all of those credits would transfer if the same student decided to pursue a major in chemistry.

Although the findings of this study did not reveal any meaningful difference in VI scores based on the number of credits a student had earned prior to transferring, the results did show a trend similar to prior research. Loss of credits is a common issue affecting the transfer process of many students, and the students participating in this study seem to have experienced the same to some degree. Transfer policies in place at the University of Kansas, where this study was conducted, state that a student can transfer up

to 64 credits from a community college, and an unlimited number of credits from a four-year university (University of Kansas Office of Admissions, 2003).

Eighty-nine (35.3%) of transfer students reported that they had completed 61 or more credit hours before transferring to the destination institution. However, only 54 (21.3%) indicated that the University of Kansas accepted 61 or more of their credits. These results are similar to those found by other researchers. In a study of students transferring from community colleges to four-year universities, Lamberts (1977) reported that 21% of students lost credits. Similarly, Townsend et al. (1993) found that community college students lost an average of nine credits hours upon transferring to a private university.

Although it seems that 54 of the 89 transfer students in this study who reported that they had completed 61 or more credits actually had the same number of credits accepted, all of the accepted credits may not be applied to the specific degree program. For instance, a prospective business student who took a statistics course at a regional community college, anticipating that it would fulfill the required statistics course for the business curriculum at the destination institution may find that the course does not count toward that specific requirement. As a result, the university may accept the course as an elective that may or may not apply toward the degree. In the end, a student may end up with more credits than needed upon graduation because credits were accepted as electives instead of fulfilling academic major requirements.

Information about course articulation could be vital to further understanding academic issues that affect transfer students and their enrollment choices as they enter the destination institution and how the academic choices available to them might impact their

intended career goals. Unfortunately, because of the way the credit ranges were structured on the instrument used in this study, it is not possible to determine if community college students had actually completed more than 64 credits, nor is it possible to determine the upper limit on the number of credits completed and accepted for student transferring from a four-year college or university.

#### *Vocational Identity by Type of Transferring Institution*

No significant differences were found with regard to vocational identity and the type of institution from which a student transferred. However, prior research indicates that two-year college students transfer for different reasons than students transferring from four-year institutions. Students transferring from one four-year institution to another four-year institution may experience fewer transition issues than two-year college transfer students. Whereas two-year college transfer students must acclimate to a larger institution and higher academic standards (Hurtado, 1996, Hurtado et al., 1996), four-year transfer students are more likely to be transferring to a similar environment, thus perhaps making their transition less anxiety provoking.

Another explanation might be the catalyst for which one decides to transfer institutions. In the case of two-year college transfer students, the decision to transfer might be the result of having completed the two-year college curriculum, therefore the student is required to transfer to an institution that can offer more advanced coursework and degrees. Four-year college students may transfer because they are not satisfied with some aspect of their current institution such as intellectual growth, quality of instruction, institutional prestige, and social life (NCES, 1997). The NCES study also found that students reporting a lack of access to job placement and personal and career counseling

were more likely to transfer than students on campuses where these services were readily available. Therefore, future research should continue to investigate possible differences between two-year and four-year transfer students.

#### *Vocational Identity by Number of Times Transferred*

Similar to the first three hypotheses, there was no significant difference found on the VI scale with regard to the number of times a student transferred. A probable explanation of the lack of significant differences in VI scores and number of transfers may be a result of the cell sizes. One-time transfer students are overrepresented in this sample (n=176), whereas two-time transfers (n=52) and those that have transferred three or more times (n=23) are significantly underrepresented. Although the null hypothesis could not be rejected, a more equitable distribution within this variable might have yielded different results. Therefore, it is possible that the uneven distribution may have resulted in a Type 2 statistical error.

The data gathered in this study resemble the results of a national study measuring the transfer behavior of beginning postsecondary students in academic year 1989-90. In a study conducted by the National Center for Education Statistics (1997) researchers found that 45% of undergraduates had enrolled in more than one institution by 1994. Another one-third of students had attended two institutions, and 12% had attended three or more institutions. One could argue a point supporting or contradicting the fact that no statistical significance was found. On the one hand, one might assert that as students become more specific about their goals, transferring institutions may be one aspect of finding the right environment to pursue those goals. On the other hand, one could suggest that transferring institutions multiple times might indicate that an individual is unsure of his

or her goals. Another explanation could be that with every transition to another institution, a transfer student might recycle through the exploratory stage of Super's (1957) Life-Span theory. Holland (1973) posits, "the choice of a vocation is an expression of personality" (p. 6). With that said, one of the four assumption of his theory is that "people seek environments that will let them exercise their skills and abilities, and express their attitudes and values" (Holland, 1973, p. 5). Thus, if a student finds that he or she is in an environment in which they cannot exercise their skills or express their attitudes, the likelihood of transferring to another institution increases.

#### *Comparison of MVS Normative Data vs. Transfer Student Normative Data*

Upon establishing normative data for the My Vocational Situation (MVS) instrument, the authors acknowledge that they were not purposeful in obtaining a well-defined sample (Holland et al., 1980). Instead, the sample population (N) included a cross section of high school and college students, and professional workers ranging in age from 16 to 69. One purpose of this study was to establish local norms for the transfer student sample population (n). Similar to the MVS sample population, transfer students in this study ranged in age from 18 to 61 years. One-sample t-test analyses were conducted to compare the mean scores of the MVS college student sample population (N) (Holland et al., 1980) to the MVS mean scores of the transfer student sample population (n). The tests revealed three significant differences at the  $p < .05$  level and one result that was marginally significant.

Female transfer students significantly differed from the MVS sample population on the vocational identity (VI) ( $p = .000$ ), and barriers (B) scales ( $p = .001$ ), and showed a marginal difference (although not statistically significant as defined by this study) on

the occupational information (OI) scale ( $p = .081$ ). Specifically, female transfer students had a higher VI score ( $\mu = 12.43$ ) than the MVS college student population ( $\mu = 10.13$ ). This suggests that female transfer students in this study had stronger and more defined vocational identities than the original MVS college student sample. However, since the demographic composition and distribution (academic classification, ages of female college students, etc.) of the MVS sample is unknown, the variable (or variables) contributing to the difference cannot be determined.

The significant difference on the barriers (B) scale shows that female transfer students ( $\mu = 3.48$ ) perceived fewer barriers to achieving their vocational goals than did the MVS sample ( $\mu = 3.22$ ). It should be noted that higher scores on the B scale indicates that an individual perceives fewer barriers to achieving vocational aspirations. As mentioned in Chapter 4, the MVS authors suggest that researchers cautiously interpret the findings on the B scale since the scale only consists of four questions with diverse content and lower reliability than the VI scale (Holland et al., 1980). In fact, when looking at the mean B scale scores of each population without statistical analysis, one may not suspect that such a strong significant difference exists.

Lastly, the results suggest that female transfer students may have more need for occupational information ( $\mu = 1.55$ ) than did the MVS female college sample population ( $\mu = 1.77$ ). Higher scores on the occupational information (OI) scale indicate a lower need for occupational information. Again, one should be cautious when interpreting the relevance of the marginal difference, as the scale only consists of four questions of diverse content and is meant to be more of a checklist than a scale (Holland et al., 1980). General societal changes might explain the differences in the transfer student sample and



the MVS sample. Societal changes between 1980 and 2004 have yielded more opportunities for women to pursue higher education and careers, perhaps explaining the increase in vocational identity yet the need for more occupational information.

Analysis of male college students revealed one significant difference ( $p=.009$ ). Male transfer students in this study expressed a greater need for occupational information ( $\mu = 1.83$ ) than male college students in the MVS sample ( $\mu = 2.39$ ). Perhaps the difference lies within the make up of the sample populations. The data from this study is self-reported by transfer male students. At this point of transition from one institution to another, male transfer students may have questions about several issues related to their transition process. As such, their need for occupational information may be, in part, related to their need for information as it pertains to their intended academic major, especially considering how this might affect their future career goals. On the other hand, the demographic characteristics of the MVS male normative population are not known. If, for example, only students native to the institution, and no male transfer students, were represented, then it seems logical that the transition process would result in transfer student needing more information than native students. Also, more than twenty years has lapsed between the development of the MVS (Holland et al., 1980) and the current research. In this time period, the college student population has changed with regard to their expectations and career habits. Another thought is that the current depressed state of the economy and occupational outlook may mean that male students are faced with identifying other career options that they might not have considered even two years ago. Therefore, without knowing the demographic composition and distribution of the MVS

male college student sample, it is difficult for the researcher to draw any definitive conclusions.

### Additional Analyses

#### *Cluster Analyses – Anxiety, Confidence, Self-Assessment, and Occupational Information*

Understanding that vocational identity is a complex construct, Mauer and Gysbers (1990) wanted to understand what specifically was contributing to the career concerns of college freshmen. Their study identified four clusters (anxiety, confidence, self-assessment, and occupational information) within the vocational identity scale, thereby targeting specific areas that comprise this complex construct. This study attempted to replicate the data analyses of the Mauer and Gysbers (1990) research using the same four clusters within the VI scale questions. Reliability analyses were conducted to determine coefficient alpha values for each of the clusters. The results of these analyses revealed that the self-assessment and occupational information clusters were not reliable. As such, only data for the anxiety and confidence clusters are reported in this study. In addition to reliability analyses, means and standard deviations were determined for the anxiety and confidence clusters. Lastly, nonparametric chi-square tests were conducted to determine if the observed responses of the transfer student sample population significantly differed from the freshman student population in the Mauer and Gysbers (1990) study.

The anxiety cluster consisted of five items from the 18-item vocational identity (VI) scale. Referencing the VI scale questions representing the anxiety cluster, the researcher can infer that transfer students in this study were experiencing some anxiety as it related to their vocational identity at the time they completed the MVS instrument. Compared to the freshman sample in the Mauer and Gysbers (1990) study, the transfer

student sample differed in that the frequency distribution of their responses to the questions of the anxiety cluster in this study is negatively skewed, whereas it is positively skewed in the original study. In the case of transfer students in this study, six percent (15) responded true to none of the questions (inverted, they responded false to all the questions) indicating a stronger sense of vocational identity than the 38% (97) of transfer students who responded true to all the questions. The fewer 'true' responses, coded '0', the higher the VI score since the score is the total number of 'false' responses, coded '1'. In comparison, 45% (1598) of the freshman sample in the Mauer and Gysbers (1990) study responded true to none of the questions (inverted, they responded false to all the questions), while nine percent (341) responded true to all the questions (Mauer & Gysbers, 1990) (see Table 4.9).

Making meaning of these results, proportionately more transfer students experienced anxiety as it related to vocational identity than did the freshmen sample. For the 62% (157) of transfer students that indicated a 'true' response to four or more of the Anxiety cluster questions, their anxiety may be a result of the transition process (adapting to a new environment or not having been exposed to a career option they find congruent with their interests, skills, and abilities). Depending upon their specific demographics (i.e., age, gender, race/ethnicity), the level of anxiety experienced by any one of the transfer students in the sample could have been the result of the academic decisions faced by each student during orientation, which are characteristic of Super's (1957) exploration stage. For some, the anxiety may have been evoked by the idea of starting over at another institution for the second, or perhaps third or more, time since they began their pursuit of higher education. For others, anxiety might have been the result of letting go of one

career or academic major and pursuing a new course of study. Ginzberg et al. (1984) concludes that prior career decisions and life experiences will have an impact on individuals as they reassess their career decisions. The impact of past experiences can be positive or negative. Comparatively, the freshmen students in the original study may have experienced less anxiety about vocational identity when entering college because they had yet to experience situations that might challenge their career goals, such as difficult academic courses, tuition expenses, a depressed economy and job outlook, and competing work and social demands.

The Confidence cluster analysis produced negatively skewed frequency distributions for both sample populations, meaning a significant number of students in each sample lacked some aspect of confidence as measured by the questions in this cluster. Proportionately speaking, it appears that both the transfer sample in this study and the freshmen sample in the Mauer and Gysbers (1990) study are similar with regard to the results on the Confidence cluster. More students than not answered 'true' to all six questions comprising this cluster. These results indicate a definite need for reassurance, concern about interests, and uncertainty about occupations and career opportunities. Because results were similar for both groups, future researchers might question at what point (age, academic class, number of transfers, credits earned, etc.) does the confidence level shift, resulting in a positively skewed frequency distribution? The use of dichotomous responses on the MVS makes it difficult to determine how much reassurance students need and how much concern or uncertainty students are experiencing. Nevertheless, it appears that confidence, or lack thereof, with regard to vocational identity is an important area for researchers and practitioners to address.

Although the results of the self-assessment and occupational information clusters were not reported due to low reliability values, it might be helpful to give some thought as to why these clusters had such low reliability values. It should be noted that the reliability analysis for the self-assessment cluster revealed that if question #15 were removed, the coefficient alpha for the cluster would decrease from  $\alpha = .51$  to  $\alpha = .35$ . When reviewing the four items that comprise the self-assessment cluster, it appears as though question #15 is the only question within the cluster that asks students to assess an aspect of their vocational identity over multiple years, whereas the other questions seem to solicit students' thoughts at that particular point in time. Simply put, question #15 is the only question that asks the individual to give thought to how he or she views their vocational identity over an extended time period. The only other question on the VI scale that implies an extended time period is question #2, which is grouped into the confidence cluster containing more items. However, the removal of question #2 from the confidence cluster does not have the same effect as question #15 has on the self-assessment cluster. It is unclear why question #15 would have such a dramatic impact on the coefficient alpha if removed from the self-assessment cluster other than to say that perhaps this is not a relevant question to determine one's self-assessment.

The occupational information cluster only consists of two items from the VI scale. The simple explanation addressing the low reliability value of this cluster might be that the cluster consists of too few items. On the other hand, the content of the two questions might provide another explanation. Question #11 seems to solicit the individual's opinion in comparison other workers, whereas question #14 addresses opinion of oneself. In

essence, these two questions address completely different aspects of one's need for occupational information.

Two things to note when comparing the results of this study and that of Mauer and Gysbers (1990) are the disparity in sample size and the demographic of each sample. Arguably, the freshman student sample is larger and possibly includes a better representation of students than the transfer student sample in this study. However, the nonparametric chi-square tests conducted on the transfer student sample generated expected cell sizes based on the cell sizes for each response of the Mauer and Gysbers study (see Table 4.9). Doing so allowed the researcher to identify the number of expected responses based on the prior research by Mauer and Gysbers. The freshmen sample included all students participating in a summer orientation program. Though the study does not report whether those participating in summer orientation was inclusive of all freshmen students admitted to the university, summer orientation programs tend to be larger than spring orientation programs like the one at which data for this study was collected.

Second, the nature of the sample population used in this study makes it difficult to make a comparison. The very status that makes them unique – transfer – means that they have incurred an experience unknown to the freshmen sample. For some transfer students, they have encountered the transition process on more than one occasion. Additionally, these transfer students have come from both two-year and four-year institutions, and the cluster analyses do not make the distinction between the two, or any of the demographic variables. Therefore, conducting the cluster analyses was helpful in identifying multiple facets of vocational identity and how each affects the construct.

However, the clusters alone are not able to capture demographic information that would further explain the impact on specific populations and how, if at all, vocational identity clusters may differ for each.

### Limitations

An effort to expand literature regarding a specific population in a new direction has its benefits and challenges. The benefit of such a study is that it is likely to yield new information and be a catalyst for future research. The challenge of taking on research of this kind is that there are no prior studies to replicate. Therefore, anticipating limitations and controlling or minimizing their impact on the front-side of the study is more difficult. This study included several limitations that will be addressed in this section.

Although fast, cost effective, and convenient, the convenience sampling method is not strategic or purposeful (Upcraft & Schuh, 1996, p. 57). The setting in which subjects were surveyed for this study was chosen because it was considered to be the best way to target a captive audience of transfer students and yield the greatest response rate. The return of 253 usable surveys out of 331 transfer students that checked in for orientation yielded a response rate of 76.4%. However, this response rate is a bit misleading. A total of 650 transfer students were admitted for the spring 2004 semester, however attendance at orientation is not required for admitted students. Therefore, the students who participated in this study were only a sample of the entire transfer student population admitted for the 2004 spring semester at the University of Kansas.

The sampling method proved to be limiting in two ways. First, the results of the sample population cannot be generalized even to the admitted spring 2004 transfer students because those who attended orientation self-selected to do so. Further, there is

no way to determine if students who opted to attend orientation did so because they were more or less certain about their vocational identity, if their reason for attending had anything to do with vocational identity at all. Second, the location and type of institution where the study was conducted does not allow the researcher to generalize the findings of this study to transfer student populations at other institutions. For instance, these results are not generalizeable to private, small liberal arts, or religiously affiliated institutions. Additionally, responses from students transferring to colleges and universities in states such as California, Texas, Florida, or those in the mid-Atlantic region may differ as a result of being surrounded by community college systems in such states and with more and better established articulation agreements with four-year institutions.

A second limitation of this study is the lack of ethnic students represented in the sample population. Overwhelmingly, the respondents in this study were White students, with only 25 of 253 self-reporting as a person of an ethnic race (four identified as “Race not included” and one respondent did not answer this question). Although no significant differences in the MVS scales were revealed, these findings should be interpreted with caution as other research has shown differences. Additionally, Upcraft and Schuh (1996) caution researchers against conducting statistical analyses with less than 35 subjects for each variable.

To that end, a third limitation is identified. In some cases, analyses were conducted with less than 35 subjects for each variable. Although Upcraft and Schuh (1996) do not recommend this, the researcher decided to conduct the analyses in an effort to identify trends or potential differences worthy of investigation in future research. Although none of the analyses in question yielded statistically significant differences that



is not to say that an increase in subjects for each demographic variable may not have yielded a different statistical result.

A fourth limitation to this study relates to the academic credit ranges and academic classification. Currently, the University of Kansas assigns students to a class level based on the following credit hour requirements: freshman 0-29 credit hours; sophomore 30-59 credit hours; junior 60-89 credit hours; and senior 90 or more credit hours (University of Kansas 2002-2004 Undergraduate Catalog, p. 37). Unfortunately in this study, the credit ranges were constructed such that one range could include two different academic classifications. For example, the 25-36 credit range includes both freshman and sophomore transfer students based on the classifications established by the university. Therefore, there is no way to reconcile the number of academic credits accepted by the institution and the academic standing of each subject. In fact, the question soliciting information on academic standing did not ask students to differentiate their answer based on the number of credits they had completed in their academic career or the number of academic credits accepted by the institution. Considering these circumstances, the researcher cannot determine the basis from which each subject responded to this question.

A fifth limitation of this study is the dichotomous nature of the chosen instrument, the MVS. Students were only given the option to choose one of two answers provided (i.e, yes or no; true or false). In some cases, students circled the empty space between the two options, indicating that their response lay somewhere between the two extremes. Though there were few surveys completed in this manner, it does imply to the researcher that all students may not be comfortable with an absolute yes or no/true or false response.

In future studies, it might be more effective to use an instrument with a continuous scale, thereby allowing some variability. If an instrument with a continuous scale had been used in this study, the researcher could have analyzed the degree of response for each question.

This study is also limited by information it does not capture. First, the intended academic major of each subject was not captured. Therefore, no analyses to compare the vocational identity of subjects by major could be conducted (i.e., education versus business majors). Second, it was realized that the data does not capture academic progress for each subject. The researcher cannot speculate the time period within which a subject completed a certain number of credits. For example, one subject may have completed 30 credits within two semesters, whereas another subject may have taken five or more semesters to complete the same number of credits. Similarly, there is no way to determine how long a student stopped out of higher education before deciding to transfer to the university in this research study, if there was any time lapse at all. Finally, the data did not capture participant work experiences, or lack thereof, that may have impacted vocational identity.

Lastly, and perhaps most importantly, an all-encompassing definition of what constitutes a transfer student does not exist. Perhaps transfer students are either a common phenomenon or a commonly understudied phenomenon because there are limited definitions to accurately describe them. The definition used in this study is the one used by the University of Kansas in its admissions process. For the purposes of this study, a transfer student was defined as one who had completed “at least 24 credit hours at the time of application with a 2.0 or higher GPA on a 4.0 scale from a Kansas community college or regionally accredited Kansas college or university. Students

transferring from an out-of-state institution must have completed 24 college credit hours with a 2.5 GPA or higher on a 4.0 scale from a regionally accredited community college or 4-year institution.” (University of Kansas Tips for Transfer Students, 2003, p. 6).

Students transferring with less than 24 college credit hours can be admitted under special circumstances. However, Kodama (2002) defined transfer students as those that have “transferred to a 4-year university with at least 12 college credits already earned” (p. 236). While twelve credits is an indication that a student has completed the equivalent of one full semester of study, Kodama’s definition assumes that students cannot transfer to an institution with less than twelve credit hours earned. Or, that transfer students with less than twelve credit hours are classified as something other than transfer status, such as a freshman of advanced standing. Additionally, by limiting the definition to only those students transferring to a four-year university, Kodama excluded students who may have started at a four-year institution and transferred to a community college. Although this is usually termed “reverse transfer,” it is an act of transition, or transferring, nonetheless. Transfer students are generally considered to have earned credits at an accredited post-secondary institution after earning a high school diploma or GED, are transferring any credits from another institution, and have never attended the current institution at which they are enrolling.

The following section provides implications for practice in student affairs, taking the above-mentioned limitations into consideration.

#### Implications for Practice

The presence of transfer students on our traditional four-year college and university campuses will continue to increase in the coming years. The combination of

economic factors impacting the growth at four-year institutions, increase in tuition costs, and a growing segment of well-prepared high school students choosing to attend community colleges before transferring to traditional institutions because it is a more affordable alternative, will surely yield a significant increase in transfer students (Evelyn, 2004). Currently, much of what is known about transfer students addresses their academic success and persistence to attaining a degree. As this population continues to grow, the need to understand the various facets of their experiences will become more important. This study attempted to address a different facet of the transfer student experience. Understanding the vocational identity of transfer students and the differences that may exist between them and students native to an institution may have implications for student programs and services.

#### *Implications for Career Counseling and Placement Services*

Career services on university campuses have evolved from having separate offices for counseling services and placement in the 1960s to offering more comprehensive services to a more diverse student body in the 1990s (Smith & Gast, 1998). Career centers have placed more emphasis on establishing connections with students early in their academic careers by offering 1-credit hour career development and planning courses, student employment opportunities, internships, and special programs and services targeted to first year students. A new aspect of the diverse student body includes transfer students.

Career centers should be among the first offices to initiate contact to get transfer students acclimated to the services and programs available. Even more, there is a need for career center staff to be well-versed on transfer student issues and trends. Unlike

programming for freshmen students, a 'one size fits all' program model will not work for the transfer student population. Considering the small population represented in this study, programming and counseling needs of the 19-year-old transfer student are likely to be very different from the 34-year-old transfer student. Likewise, the work experiences and education levels within the transfer student population are likely to widely vary. Traditionally aged students may transfer to the university with one year of part-time work experience, whereas non-traditionally aged students may transfer with a decade of full-time work experience.

Career centers need to be aware that they are not only serving students native to the institution, but also those transferring from other institutions with varying degrees of experience. Programming and counseling services need to be intentional, and might include dedicating a career counselor to facilitate programs and counseling services specifically for transfer students. The office should also take the initiative to implement measures to identify transfer students and what services they use most often. For instance, many career centers ask students seeking services to fill out a form indicating what services they need and a host of other demographic information. It could be useful to ask students if they transferred to the institution. Gathering such data could provide insight to which programs and services are most needed by the transfer student population and if those needs significantly differ from students native to an institution.

#### *Implications for Student Development*

Facilitating student development is at the heart of the student affairs profession. Several theorists inform us on how students develop socially, cognitively, and morally (Chickering & Reisser, 1993; Perry, 1981; Kohlberg, 1973). Experiential learning

opportunities, student employment, leadership roles, and academic coursework are all factors that influence a student's growth and development.

Tinto (1987) asserts that academic and social integration are equally important to retention. However, colleges and universities struggle to effectively integrate transfer students into the existing culture that may be physically and culturally different (Hurtado, 1996, Hurtado et al., 1996), thereby lowering retention rates. Townsend (1995) found that transfer students are more self-sufficient, often relying more on family and friends to help them facilitate their transition process. The third vector of Chickering's (1993) Identity Development Model suggests that moving through autonomy toward interdependence entails being relatively self-sufficient and pursuing self-chosen goals. Although these findings in this study suggest transfer students are autonomous in nature, Townsend's (1995) findings did not indicate whether this seeming autonomy is intentional, or a byproduct resulting from lack of institutional support from the transferring and the destination institutions. If transfer students are forced to become autonomous and rely on friends and family, these actions suggest that they are engaging more so in a 'survival of the fittest' mode rather than achieving Chickering's developmental vector.

The post-hoc cluster analyses performed in this study not only acknowledge that vocational identity is a complex construct, but also identified emotions experienced by this population. Each of the four clusters included an emotional component. Chickering's (1993) theory suggests that students experience a host of emotions upon entering or returning to college, including anxiety, anger, and desire. Vector two, managing emotions, provides a lens through which practitioners can evaluate students' ability to manage emotions effectively before they become overwhelming (Chickering, 1993).

Given the level of anxiety and lack of confidence of transfer students in this study, the researcher suggests that as a population, students in this study have not completely mastered vector two.

The fourth vector, developing mature interpersonal relationships, can be the most difficult for transfer students to achieve. Upon entering the destination institution, transfer students bring habits that may differ from the student native to the institution. Some of these habits include work behaviors and commuting (Frederickson, 1998; Kodama, 2002). Commuting to campus on a daily basis and maintaining a part-time job can leave little room for transfer students to get involved in student organizations and to develop sustaining relationships and leadership skills. Engaging in such activities helps the individual to become more tolerant of other points-of-view. Chickering (1993) suggests, “awareness, breadth of experience, openness, curiosity, and objectivity help students refine first impressions, reduce bias and ethnocentrism, increase empathy and altruism, and enjoy diversity” (p. 48). One major obstacle to the development of mature relationships for transfer students is the lack of priority attributed to their interests in on campus housing (Hampton et al., 1999). As colleges and universities gravitate toward fusing academic and social experiences through living-learning communities and leadership opportunities in residential facilities, transfer students become vulnerable to even greater disadvantages when they are not given the opportunity to partake in such communities.

One of the main purposes of student affairs is to help students develop and become comfortable with discovering their own identity. It is questionable whether or not transfer students ever develop identity after transitioning to the destination institution.

Although they appear to be autonomous, the results of this study and prior research seem to indicate that this population struggles with developing competence in a new environment and managing emotions. Compounding the situation is the fact that there is not an abundance of resources available specifically to address the needs of transfer students. In part, the lack of resources is due to the limited research conducted on this population. In any case, the issues transfer students are facing based on the findings of this study seem to indicate that these students may face more of a challenge than students native to the institution with regard to establishing their own identity.

Chickering (1993) asserts that individuals must achieve and master vectors one through four before they can begin to form an identity. This is not to say that transfer students did not progress to, and perhaps beyond, the fifth vector at their previous institution. But, this researcher is suggesting that transfer students might find themselves recycling through Chickering's Identity Development Model upon entering a new institution with fewer supports, programs, and services designed to take advantage of their experiences and help them with their needs.

#### *Implications for University Administrators*

According to the NCES (1997) study on transfer student behavior, 43% of students transferring from a two-year college to a four-year institution with an associate's degree had completed a bachelor's degree by 1994. In contrast, only 17% of students transferring from a two-year college to a four-year institution without an associate's degree persisted to graduation by 1994. As the population of transfer students on four-year campuses continues to increase, college administrators need advocate for services to ensure their success. A university's efforts to recruit transfer students are in vain if there



is little or no commitment to retain them and ensure their success. Being committed to the success of transfer students, academically and personally, means providing adequate services and programs to integrate them into the campus culture, without ignoring their unique experiences.

There are several ways campus administrators can become advocates for the transfer student population. First, allocating fiscal, physical, and human resources toward the creation of a transfer center would help ease the transition for students. The 4S System (Schlossberg et al., 1995) of the individual transition framework identifies four variables essential for coping with change – *situation*, *self*, *supports*, and *strategies*. Creating a transfer center could serve to alleviate the stresses of the transition process by providing adequate services and moral support to transfer students. The center might also help transfer students employ life-balance strategies, especially if the destination institution is a culture and environment drastically different from their previous institution.

Likewise, the center could offer an orientation course, similar to those offered to freshmen students during their first semester. Ideally, students should have the option to enroll in such a course at the 100, 200, or 300-course level. Having these options encourages students to enroll regardless of their academic classification at the time of transfer, and have it count toward their academic degree. This course would provide an opportunity to academically and socially integrate students into the campus community, thus ensuring their success (Tinto, 1987).

Lastly, administrators should make an effort to understand the characteristics of the transfer student population on their respective campuses. Having such valuable data

will allow administrators to track and predict trends in the population in an effort to be proactive in implementing or reevaluating needed services. It is no longer acceptable for institutions only to be aware of the number of transfer students enrolling at their respective institutions for statistical and reporting purposes. Instead, institutions of higher education need to understand characteristics of transfer students such as work habits, familial obligations, and institutions from which students are transferring. Such knowledge would likely influence course schedules, programs and activities geared toward incorporating rather than working against families, work schedules, and strengthening articulation agreements with other institutions.

#### Suggestions for Future Research

This is the first known study that examined the vocational identity of transfer students using the MVS. Though the findings of this study yielded few significant differences, they should be regarded as preliminary and taken into consideration for further investigations. Following are suggestions for future research.

Given the various limitations of this study, particular attention should be paid to incorporating additional variables in future research. The field of knowledge related to the transfer student experience can be enriched by capturing data regarding intended academic major, the duration of time one has pursued higher education, the length of time between leaving their previous institution and enrolling at the current institution, and prior work experience. Additionally, future researchers should construct credit ranges that are mutually exclusive and consistent with the research institution's academic classifications (freshman, sophomore, junior, and senior). Lastly, gathering data on socio-

economic status and parental educational attainment may provide insight regarding the various experiences of transfer students.

Since this study was conducted at one large public, Research I institution, it is encouraged that future studies take into consideration institution type, size, and location. Replicating this study at smaller, private, rural, urban, or religiously affiliated institutions may yield different results. Likewise, geographic location may have a tenable impact on students transferring from community colleges, as community college systems in certain parts of the country are more developed than those in other parts.

Specifically for community colleges that are considered to be “feeder schools” (or those with strong articulation agreements) for local, four-year institutions, it may be helpful to pursue a longitudinal study. It would be interesting to see if the vocational identity of community college transfers changes during the transition process. For instance, if a student was surveyed and showed a high vocational identity in his or her last semester at the community college, would that change upon being admitted to the four-year institution or after one semester of enrollment? One could speculate many reasons for such a change. In one case, a student could have pursued an academic track that would allow him or her to apply for admission to a limited enrollment program (i.e. business, engineering, communication, etc.) at the four-year institution. However, he or she learns that he or she have been admitted to the school, though not admitted to the specific program of his or her choice. How would this alter a student’s vocational identity? In another situation, the student may have been admitted to the academic program of his or her choice, but upon registering for classes he or she discovers all courses are closed due to over subscription. Would a student question his or her

vocational identity based on such external factors? This becomes particularly critical for students who have fulfilled all of their general degree requirements and have no more electives to fulfill.

Another way to compare future research among transfer students would be to administer the MVS to transfer students attending orientation and those who elect not to attend orientation. The results may be able to identify whether or not the strength of one's vocational identity correlates to their decision to attend orientation before beginning classes at the destination institution. It can also provide data that reveal what impact the orientation process, and the decisions students make during this process, affect vocational identity and a student's career decision making process.

Additionally, it is suggested that future researchers studying the vocational identity (VI) of transfer students use other instruments that are designed to measure vocational identity. The low reliability values for the occupational information (OI) and barriers (B) scales of My Vocational Situation (MVS) instrument (Holland et al., 1980) do not provide adequate measures of these two constructs. Mauer and Gysbers (1990) suggested that vocational identity is a complex construct, and that the VI scale of the MVS can be divided into clusters measuring anxiety, confidence, self-assessment, and occupational information as they relate to vocational identity. When the four clusters were tested in this study, it was discovered that the self-assessment and occupational information clusters did not have sufficient reliability values, thereby voiding any findings of these two clusters. This finding suggests that the MVS may not be the best instrument to measure the occupational information needs of an individual. Measuring vocational identity, occupational information needs, and perceived barriers of a transfer

student sample population using the MVS and an alternate instrument in future research might allow for the comparison of results. Doing so could help determine what instrument, MVS or otherwise, is most appropriate to measure these aspects of career development of transfer students.

The sample size of this study was not large enough to conduct multiple analyses on multiple variables. If this study were to be replicated in the future, the researcher would suggest the use of a much larger sample population. In doing so, the data might lend the researcher the opportunity to conduct correlation analyses on multiple variables. For instance, if age and number of times a student had transferred were correlated, would the results reveal any new information? Similarly, would age and number of credits earned help student affairs practitioners understand the transfer student any better than we do now?

Having the ability to correlate multiple variables leads to another opportunity for future research. The discussion of this study spoke to the idea that the age ranges of Super's (1957) Life-Span theory might be more flexible than originally thought. The demographics of the American college population are constantly changing. As new students enter our institutions, their ever-changing views, interests, values, assumptions, aspirations, and expectations challenge student affairs professionals. Career counselors and students stand to benefit from any new research that would shed light on how, if at all, the characteristics of current college students might assimilate to, or deviate from, the stages of the life-span theory (Super, 1957).

Future studies may also want to consider sampling techniques that ensure a more representative sample. This study employed a technique that was conducive to

convenience data collection with minimal financial costs. However, perhaps the greatest cost incurred in this study was the inadequate representation of ethnic/racial diversity in the sample population. Although one of the intentions of this study was to determine if ethnicity affected vocational identity, the researcher was unsuccessful in drawing a conclusion simply because there were not enough non-Caucasian students represented in the sample. Further, it is recommended that any analyses conducted have adequate subjects for each ethnic variable, so that hypotheses can be developed for each, as opposed to comparing White and non-White students. Even though this study attempted to do just that, reporting a significant difference of a mixed group of students from different ethnic/racial backgrounds is dubious at best, and clearly does not adequately inform research or practice.

Lastly, and perhaps most significantly to studies on the transfer student population, more research should be devoted to establishing a comprehensive definition of what it means to be a transfer student. As evidenced in this study, the researcher's definition of "transfer student" was limited to the definition used by the University of Kansas. Still, other definitions exist that both conform to and differ from that used by the University of Kansas. Kodama's (2002) definition is just one example. Additionally, what Kodama's definition excludes speaks to the fact that there are multiple facets of what it means to be a transfer student, including reverse transfers and having earned credit from a vocational school (even though the credits may not be accepted by a four-year institution).

It is possible that the suggestions outlined above do not provide an exhaustive list of opportunities for future research; however, the ideas presented are logical next steps.

## Summary

The purpose of this study was to determine if differences in vocational identity existed among subpopulations of transfer students entering a large public, Research I institution in the Midwestern region of the United States. Of the eight hypotheses tested, statistical analyses only revealed a significant difference between normative data of the MVS sample population and the transfer student sample population surveyed in this study. Specifically, female transfer students exhibited higher vocational identity (VI) and barriers (B) mean scores than MVS female college students. Female transfer students also showed a marginal difference on the occupational information (OI) scale when compared to MVS female college students, indicating that transfer students in this study had more need for occupational information than MVS female college students. Additionally, male transfer students showed a significant difference on the OI scale, indicating a greater need for occupational information than MVS male college students.

Additional analyses deconstructed the VI scale to identify multiple constructs within the VI scale based on prior research (Mauer & Gysbers, 1990). The results of the cluster analyses yielding frequency distributions showed that transfer students in this study experienced more anxiety and tended to reassess themselves (i.e., skills, values, and interests) more so than freshmen students upon entering the destination institution. The transfer student population in this study and the freshmen sample in Mauer and Gysbers' (1990) study seemed to exhibit similar levels of confidence and need for occupational information.

This study contributes to the existing body of literature on transfer students, and has carved a new path for research of transfer student and career development. Future

research can provide a better understanding of the effects the transfer process has on vocational identity and career decision-making. Additionally, understanding the demographics of the transfer student population can enlighten student affairs administrators in their practices with this unique, and growing, population.



## APPENDIX A: MVS PERMISSION AGREEMENT

Thadtishia Andrea McCoy  
11200 Lockwood Drive #1411  
Silver Spring , MD 20901

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6.1 Test users should evaluate the available written documentation on the validity and reliability of tests for the specific use intended.

6.3 When a test is to be used for a purpose for which it has not been validated, or for which there is no supported claim for validity, the user is responsible for providing evidence of validity.

6.5 Test users should be alert to probable unintended consequences of test use and should attempt to avoid actions that have unintended negative consequences."

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By \_\_\_\_\_ By \_\_\_\_\_  
Authorized Representative **Thadtishia Andrea McCoy**

Date \_\_\_\_\_ Date \_\_\_\_\_

## APPENDIX B: MVS SAMPLE ITEMS PERMISSION

Thadtisha McCoy  
11200 Lockwood Drive #1411  
Silver Spring, MD 20901

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Customer Number: **310340**  
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Permission Number: **14702**

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6.1 Test users should evaluate the available written documentation on the validity and reliability of tests for the specific use intended.

6.3 When a test is to be used for a purpose for which it has not been validated, or for which there is no supported claim for validity, the user is responsible for providing evidence of validity.

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By \_\_\_\_\_  
Authorized Representative

By \_\_\_\_\_  
**Thadtisha McCoy**

Date \_\_\_\_\_

Date \_\_\_\_\_

## APPENDIX C: MVS SAMPLE ITEMS

### SAMPLE ITEMS FOR

#### **My Vocational Situation**

by John L. Holland, Denise C. Daiger, and Paul G. Power

Directions: Try to answer all the following statements as mostly TRUE or mostly FALSE. Circle the answer that best represents your present opinion.

In thinking about your present job or in planning for an occupation or a career:

- |    |   |   |   |
|----|---|---|---|
| 1. | I need reassurance that I have made the right choice of occupation. | T | F |
| 2. | I am confused about the whole problem of deciding on a career.      | T | F |

For the last two questions, circle YES or NO.

- |    |   |     |    |
|----|---|-----|----|
| 1. | I need the following information:                     |     |    |
|    | How to find a job in my chosen career.                | YES | NO |
| 2. | I have the following difficulties:                    |     |    |
|    | I lack the special talents to follow my first choice. | YES | NO |

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You may change the format of these items to fit your needs, but the wording may not be altered. Please do not present these items to your readers as any kind of "mini-test," but rather as an illustrative sample of items from this instrument. We have provided these items as samples so that we may maintain control over which items appear in published media. This avoids an entire instrument appearing at once or in segments which may be pieced together to form a working instrument, protecting the validity and reliability of the test. Thank you for your cooperation. CPP Inc., Licensing Department.

## APPENDIX D: SUPPLEMENTAL QUESTIONS TO MVS

### Demographic Information

**For each question, please check or fill in the appropriate answer that best describes you.**

**1. What is your academic standing? (please check only one)**

- |                                       |   |
|---------------------------------------|---|
| 1. <input type="checkbox"/> Freshman  | 4. <input type="checkbox"/> Senior                            |
| 2. <input type="checkbox"/> Sophomore | 5. <input type="checkbox"/> Other (please specify:<br>_____ ) |
| 3. <input type="checkbox"/> Junior    |   |

**2. Gender (please check only one)**

- |                                  |                                    |   |
|----------------------------------|------------------------------------|---|
| 1. <input type="checkbox"/> Male | 2. <input type="checkbox"/> Female | 3. <input type="checkbox"/> Transgendered |
|----------------------------------|------------------------------------|---|

**3. Please indicate your age. \_\_\_\_\_**

**4. Race/Ethnicity**

- |                             |  |
|-----------------------------|--|
| 1. <input type="checkbox"/> | <input type="checkbox"/> African American/Black (not of Hispanic origin)   |
| 2. <input type="checkbox"/> | <input type="checkbox"/> Asian or Pacific Islander (includes the Indian sub-continent)   |
| 3. <input type="checkbox"/> | <input type="checkbox"/> American Indian or Alaskan Native   |
| 4. <input type="checkbox"/> | <input type="checkbox"/> Hispanic/Latino (Spanish culture or origin)   |
| 5. <input type="checkbox"/> | <input type="checkbox"/> White/Caucasian (persons not of Hispanic origin, having origins in any of<br>the original people of Europe, North Africa, or the Middle East) |
| 6. <input type="checkbox"/> | <input type="checkbox"/> Multi-racial or multi-ethnic  |
| 7. <input type="checkbox"/> | <input type="checkbox"/> Race not included above   |

**5. How many academic credits from you prior institution(s) were accepted by the University of Kansas?**

- |                                   |  |
|-----------------------------------|--|
| 1. <input type="checkbox"/> 0*    | 5. <input type="checkbox"/> 37-48      |
| 2. <input type="checkbox"/> 1-12  | 6. <input type="checkbox"/> 49-60      |
| 3. <input type="checkbox"/> 13-24 | 7. <input type="checkbox"/> 61 or more |
| 4. <input type="checkbox"/> 25-36 |  |

*\* If you responded "0" to question 5, you do not have to complete the rest of this survey. Please return survey to your OA. Thank you for your participation!*

**6. How many total credits have you completed prior to applying to the University of Kansas? (please check only one)**

- |                                   |                                   |  |
|-----------------------------------|-----------------------------------|--|
| 1. <input type="checkbox"/> 1-12  | 3. <input type="checkbox"/> 25-36 | 5. <input type="checkbox"/> 49-60      |
| 2. <input type="checkbox"/> 13-24 | 4. <input type="checkbox"/> 37-48 | 6. <input type="checkbox"/> 61 or more |

**7. Based on your answer to question #6, were the majority of your completed credits: (please check only one)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Semester hours | 2. <input type="checkbox"/> Quarter hours |
|--|---|

**8. If you have earned credit from another institution, what type of institution did you last attend before KU?**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> 2 year Trade/Vocational School<br>(i.e. DeVry) | 4. <input type="checkbox"/> 4 year college or university |
| 2. <input type="checkbox"/> 2 year Community College                       | 5. <input type="checkbox"/> Other<br>_____               |
| 3. <input type="checkbox"/> 4 year Trade/Vocational School<br>(i.e. DeVry) |  |

9.      **How many times have you transferred colleges or universities (including your transfer to the University of Kansas)?**
1.    ☐ Once
  2.    ☐ Twice
  3.    ☐ Three times
  4.    ☐ More than 3 times

*Please turn in your completed survey to your Orientation Assistant before leaving your morning Student-to-Student session.*

*Thank you very much for your participation!*

## **APPENDIX E: SUBJECT CONSENT FORM**

Title: Vocational Identity Among Transfer Students:  
A Descriptive Study Using My Vocational Situation

I state that I am over 18 years of age and wish to participate in a program of research being conducted by Dr. Linda K. Gast (principal investigator) and Thadtisha McCoy (student investigator) in the Department of Counseling and Personnel Services at the University of Maryland, College Park.

The purpose of this research is to determine if there are any differences in career certainty among college transfer students.

The data collection procedures involve my completion of a 33-questions, of which 26 questions are the My Vocational Situation assessment. It is estimated that the survey should take you no more than 10 minutes to complete. There will be no follow-up data collection as a part of this research. Additionally, I will not be asked to identify myself, either by name or student identification number.

All information collected in this study is confidential to the extent permitted by law. I understand that the data I provide will be grouped with data others provide for reporting and presentation and that my name will not be used. This consent form will be collected and stored separately from the survey, so as to protect my identity.

There are no known risks associated with this study.

This study is designed to help the investigators learn more about the career certainty of college students. I am free to ask questions or decline my participation at any time and without penalty.

If you have any questions about your rights as a research subject or wish to report a research related injury, please contact:

Institutional Review Board Office, University of Maryland, College  
Park, Maryland 20742 (email) [irb@deans.umd.edu](mailto:irb@deans.umd.edu); telephone 301  
405 4212

### *Principal Investigator*

Linda K. Gast, PhD  
Candidate  
University Counseling Center  
Shoemaker Building  
College Park, Maryland 20742-8111

### *Student Investigator*

Thadtisha McCoy, Master's  
11200 Lockwood Drive, #1411  
Silver Spring, MD 20901  
301-593-1395



301-314-7668  
lgast@umd.edu

tmccoy@union.umd.edu

NAME OF SUBJECT (please print)

---

SIGNATURE OF SUBJECT

---

DATE 

---

## APPENDIX F

### Occupational Information (OI) scale results

Table 1

*Occupational Information scale results of transfer students by gender*

	Total	Mean Score	Standard Deviation	t-statistic (df) p-value
Male	124	1.8387	1.4616	1.592 (251) $p = .113$
Female	129	1.5504	1.4195	

Table 2

*Occupational Information scale results of transfer students by academic classification*

	Total	Mean Score	Standard Deviation	F-statistic (df) p-value
Freshman	70	1.6000	1.4081	1.624 (4) $p = .169$
Sophomore	97	1.5876	1.3826	
Junior	68	1.9706	1.5832	
Senior	11	2.000	1.3416	

Table 3

*Occupational Information scale results of transfer students by age*

	Total	Mean Score	Standard Deviation	F-statistic ( <i>df</i> ) p-value
Age = 18-19	83	1.5783	1.4324	.347 (4) p = .846
Age = 20	51	1.6863	1.4211	
Age = 21	35	1.8000	1.5492	
Age = 22-25	36	1.8333	1.6125	
Age = 26 or older	34	1.8529	1.3736	

Table 4

*Occupational Information scale results of transfer students by ethnicity*

	Total	Mean Score	Standard Deviation	t-statistic ( <i>df</i> ) p-value
Non-white	223	1.7040	1.4619	-.558 (246) p = .580
White	25	1.5600	1.1930	

\*All students of color were aggregated into one category since individually each category contained less than 6 subjects.

Table 5

*Occupational Information scale results of transfer students by number of credits completed*

	Total	Mean Score	Standard deviation	F-statistic ( <i>df</i> ) p-value
1-12 credits	16	1.8750	1.6279	.491 (5) p = .783
13-24 credits	49	1.5510	1.3549	
25-36 credits	31	1.4516	1.2339	
37-48 credits	33	1.7879	1.5362	
49-60 credits	34	1.5882	1.4380	
61+ credits				

Table 6

*Occupational Information scale results of transfer students by type of transferring institution*

	Total	Mean Score	Standard deviation	t-statistic ( <i>df</i> ) p-value
2-year Comm. College	127	1.5197	1.4576	-1.323 (233) p = .187
4-year college/ university	108	1.7685	1.4116	

Table 7

*Occupational Information scale results of transfer students by number of times transferred*

	Total	Mean Score	Standard Deviation	F-statistic ( <i>df</i> ) p-value
1 time	176	1.6080	1.4181	.670 (2) p = .513
2 times	52	1.8654	1.4823	
3+ times	23	1.7391	1.4838	

## APPENDIX G

### Barriers (B) Scale Results

Table 1

*Barriers scale results of transfer students by Gender*

	Total	Mean Score	Standard Deviation	t-statistic ( <i>df</i> ) p-value
Male	124	3.4032	.9536	-.660 (251) <i>p</i> = .510
Female	129	3.4806	.9109	

Table 2

*Barriers scale results of transfer students by Academic Classification*

	Total	Mean Score	Standard Deviation	F-statistic ( <i>df</i> ) p-value
Freshman	70	3.4000	1.0954	.642 (4) <i>p</i> = .633
Sophomore	97	3.5773	.7477	
Junior	68	3.3971	.8663	
Senior	11	3.3636	.9244	

Table 3

*Barriers scale results of transfer students by Age*

	Total	Mean Score	Standard Deviation	F-statistic ( <i>df</i> ) p-value
Age = 18-19	83	3.4940	.8319	.858 (4) p = .490
Age = 20	51	3.6078	.7504	
Age = 21	35	3.4571	.8859	
Age = 22-25	36	3.2778	1.1113	
Age = 26 or older	34	3.3529	1.0410	

Table 4

*Barriers scale results of transfer students by Ethnicity*

	Total	Mean Score	Standard Deviation	t-statistic ( <i>df</i> ) p-value
Non-white	223	3.0400	1.3063	-1.763(246) p = .090
White	25	3.5112	.8429	

\*All students of color were aggregated into one category since individually each category contained less than 6 subjects.

Table 5

*Barriers scale results of transfer students by number of credits completed*

	Total	Mean Score	Standard deviation	F-statistic ( <i>df</i> ) p-value
1-12 credits	16	3.0625	1.3401	1.937 (5) p = .089
13-24 credits	49	3.7551	.6624	
25-36 credits	31	3.3871	.8437	
37-48 credits	33	3.4848	1.0038	
49-60 credits	34	3.4706	.9288	
61+ credits	89	3.3371	.9528	

Table 6

*Barriers scale results of transfer students by type of transferring institution*

	Total	Mean Score	Standard deviation	t-statistic ( <i>df</i> ) p-value
2-year Comm. College	127	3.4252	.9801	-.156 (233) p = .876
4-year college/ university	108	3.4444	.9000	



Table 7

*Occupational Information scale results of transfer students by number of times transferred*

	Total	Mean Score	Standard Deviation	F-statistic ( <i>df</i> ) p-value
1 time	176	3.4659	.9496	.263 (2) p = .769
2 times	52	3.3654	.8863	
3+ times	23	3.3913	.9409	

## APPENDIX H

### Clusters for the Vocational Identity Scale of the My Vocational Situation

---

VI Scale  
Item No.

Clusters

---

#### *Cluster #1: Anxiety*

- 6. If I had to make an occupational choice right now, I am afraid I would make a bad choice.
- 8. Making up my mind about a career has been a long and difficult problem for me.
- 9. I am confused about the whole problem of deciding on a career.
- 12. No single occupation appeals strongly to me.
- 18. I can't understand how some people can be so set about what they want to do.

#### *Cluster #2: Confidence*

- 1. I need reassurance that I have made the right choice of occupation.
- 2. I am concerned that my present interests may change over the years.
- 3. I am uncertain about the occupations I could perform well.
- 6. I need to find out what kind of career I should follow.
- 10. I am not sure that my present occupational choice of a job is right for me.
- 13. I am uncertain about which occupation I would enjoy.

#### *Cluster #3: Self-Assessment*

- 4. I don't know what my major strengths and weaknesses are.
- 5. The jobs I can do may not pay enough to live the kind of life I want.
- 15. My estimates of my abilities and talents vary a lot from year to year.
- 16. I am not sure of myself in many areas of life.

#### *Cluster #4: Occupational Information*

- 11. I don't know enough about what workers do in various occupations.
- 14. I would like to increase the number of occupations I could consider.

#### *Cluster #5: Independent Item*

- 17. I have know what occupation I want to follow for less than 1 year.
- 

*Note.* From "Identifying Career Concerns of Entering University Freshman Using My Vocational Situation," by E.B. Mauer and N.C. Gysberrs, 1990, *Career Development Quarterly*, 39 (2), p. 159.

## REFERENCES

- American Council on Education. Committee of Student Personnel Work. (1987). The student personnel point of view. Washington, D.C.: NASPA.
- Arbona, C. & Novy, D.M. (1991). Career aspirations and expectation of Black, Mexican American, and White students. *Career Development Quarterly*, 39 (3), 231-239.
- Billson, J.M. & Terry, M.B. (1982). In search of the silken purse: Factors in attrition among first-generation students. *College and University*, 58, 57-75.
- Bridges, W. (1980). Transitions: Making sense of life's changes. Reading, MA: Addison-Wesley.
- Cohen, A.M. & Brawer, F.B. (2003). The American community college (4<sup>th</sup> Ed). San Francisco, CA: Jossey-Bass.
- The Chronicle of Higher Education Almanac (2003). *The nation*. Retrieved September 2, 2003 from <http://chronicle.com/weekly/almanac/2003>.
- Eggleston, L.E. & Laanan, F.S. (2001). Making the transition to the senior institution. In F. S. Laanan (Ed), *Transfer Students: Trends and Issues. New Directions for Community Colleges* (pp. 87-97). San Francisco, CA: Jossey-Bass.
- Evans, N.J., Forney, D.S., & Guido-DiBrito, F. (1998). *Student development in college*. San Francisco: Jossey-Bass.
- Farrell, E.F. (2003, October 31). Public-college tuition rise is largest in 3 decades. *The Chronicle of Higher Education*, 50 (10), A1, A35-A43.
- Fredrickson, J. (1998). Today's transfer students: Who are they? *Community College Review*, 26 (1), 43-54.

- Ginzberg, E., Ginsburg, S.W., Axelrad, S., & Herma, J.L. (1951). Occupational choice: An approach to a general theory. New York: Columbia University Press.
- Glass, J.C. & Bunn, C.E. (1998). Length of time required to graduate for community college students transferring to senior institutions. *Community College Journal of Research & Practice*, 22 (3), 239-264.
- Glass, J.C. & Harrington, A.R. (2002). Academic performance of community college transfer students and “native” students at a large state university. *Community College Journal of Research and Practice*, 26, 415-430.
- Goodman, D. & Schapiro, S. (1997). Sexism curriculum design. In M. Adams, L.A. Bell, & P. Griffin (Eds) Teachings for diversity and social justice, pp. 110-140. New York, NY: Routledge.
- Hampton, R., Strauch, G., Wall, D.V. (1999). The continuous quality improvement team on transfer students: Improving the experience of undergraduate transfer students at the University of Maryland. College Park, MD.
- Haviland, M.G. & Gohn, L.A. (1983). Career planning needs of college students. *NASPA Journal*, 20 (4), 28-33.
- Healy, C.C. & Reilly, K.C. (1989). Career needs of community college students: Implications for services and theory. *Journal of College Student Development*, 30, 541-545.
- Healy, C.C., Tullier, M., & Mourton, D.M. (1990). My Vocational Situation: Its relation to concurrent career and future academic benchmarks. *Measurement and Evaluation in Counseling and Development*, 23 (October), 100-107.
- Holland, J.L. (1966). The psychology of vocational choice. Waltham, MA: Blaisdell.

- Holland, J.L., Daiger, D.C., & Power, P.G. (1980a). My vocational situation: Description of an experimental diagnostic form for the selection of vocational assistance. Counseling Psychologists Press, Inc.: Palo Alto, CA.
- Holland, J.L., Daiger, D.C., & Power, P.G. (1980b). Some diagnostic scales for research in decision-making and personality: Identity, information, and barriers. *Journal of Personality and Social Psychology*, 39 (6), 1191-1200.
- Hurtado, S. (1992). The campus racial climate: Context for conflict. *Journal of Higher Education*, 63, 539-569.
- Hurtado, S., Carter, D.F., and Spuler, A. (1996). Latino student transition to college: Assessing difficulties and factors in successful college adjustment. *Research in Higher Education*, 37, 135-157.
- Keely, E.J. & House, J.D. (1993, May). Transfer shock revisited: A longitudinal study of transfer academic performance. Paper presented at the annual forum of the Association for Institutional Research, Chicago, IL.
- Kodama, C. M. (2002). Marginality of transfer commuter students. *NASPA Journal*, 39 (3), 233-250.
- Laanan, F.S. (2001). Transfer student adjustment. In F. S. Laanan (Ed), *Transfer Students: Trends and Issues. New Directions for Community Colleges* (pp. 87-97). San Francisco, CA: Jossey-Bass.
- Lamberts, J.A. (1977, May). College transfer students: Who are they? What happens to them? What are their unique needs? Paper presented at the annual meeting of the Washington Educational Research Association, Seattle, Washington.

- Leong, F.T. (1991). Career development attributes and occupational values of Asian American and white American college students. *Career Development Quarterly*, 39 (3), 221-230.
- Levine, A. & Cureton, J.S. (1998). When hope and fear collide. San Francisco, CA: Jossey-Bass.
- Lucas, E.B., Gysbers, N.C., Buescher, K.L., Heppner, P.P. (1988). My vocational situation: Normative, psychometric and comparative data. *Measurement and Evaluation in Counseling and Development*, 20(4), 163-170.
- Lunneborg, P.W. (1985). Review of My Vocational Situation. In J.V. Mitchell (Ed.), *The Ninth Mental Measurements Yearbook* (pp. 1026-1027). Highland Park, NJ: Gryphon Press.
- Marklien, M.B. (2003, June 10). Two-year schools aim high. *USA Today*.
- Mauer, E.B. & Gysbers, N.C. (1990). Identifying career concerns of entering university freshman using My Vocational Situation. *Career Development Quarterly*, 39 (2), pp. 155-165.
- McEwen, M.K., Kodama, C.M., Alvarez, A.N., Lee, S., & Liang, C.T.H. (2002). Working with Asian American college students. *New Directions for Student Services*. San Francisco, CA: Jossey-Bass.
- Meline, M. (2003, November 7). A new campus sign: No vacancy. *The Chronicle of Higher Education*, 50 (11), A4.
- Nagel, R. & Bohovich, J. (2000). *What goes into graduates' career decisions: A report on the 2000 graduating student & alumni survey*. Retrieved October 12, 2002 from <http://www.nacweb.org/pubs/journals/sp00/alumni.htm>.

- National Center for Education Statistics (1997). Transfer behavior among beginning postsecondary students: 1989-94. Washington, D.C.: National Center for Education Statistics.
- Nolan, E.J. & Hall, D.L. (1978). Academic performance of the community college transfer student: A five-year follow-up study. *Journal of College Student Personnel*, 19, 543-548.
- Osipow, S. H. (1973). *Theories of Career Development* (2<sup>nd</sup> Ed). New York: Appleton-Century-Crofts.
- Parsons, F. (1909). Choosing a vocation. Boston, MA: Houghton Mifflin.
- Pascarella, E.T. (1997). It's time we started paying attention to community college students. *About Campus*, 1(6), 14-17.
- Pascarella, E.T., Smart, J.C., & Ethington, C.A. (1986). Long-term persistence of two-year college students. *Research in Higher Education*, 24 (1), pp.47-71.
- Pascarella, E.T. & Terenzini, P.T. (1991). How college affects students. San Francisco, CA: Jossey-Bass.
- Poe, R.E. (1991). Developmental changes in vocational identity among college students. *Journal of College Student Development*, 32, 249-252.
- Roe, A. (1956). *The psychology of occupations*. New York: Wiley.
- Roe, A. & Lunneborg, P.W. (1990). *Personality development and career choice*.
- Sax, L.J., Astin, A.W., Korn, W.S., Mahoney, K.M. (2000). The American freshman: National norms for fall 2000. Los Angeles: Higher Education Research Institute.
- Scharf, R.S. (2002). Applying career development theory to counseling (3<sup>rd</sup> Ed). Pacific Grove, CA: Brooks/Cole.

- Schlossberg, N.K., Waters, E.B., & Goodman, J. (1995). Counseling adults in transition: Linking practice with theory (2<sup>nd</sup> Ed). New York: Springer Publishing.
- Smith, D.D. & Gast, L.K. (1998). Comprehensive Career Services for seniors. In J.N. Garnder, G. Van der Veer, & Associates (Eds), The senior year experience: Facilitating integration, reflection, closure, and transition (pp. 187-209). Jossey-Bass: San Francisco.
- Super, D.E. (1957). The psychology of careers: An introduction to vocational development. New York: Harper & Row.
- Teng, L.Y., Morgan, G.A., & Anderson, S.K. (2001). Career development among ethnic and age groups of community college students. *Journal of Career Development*, 28 (2), 115-127.
- Tiedeman, D.V. & O'Hara, R.P. (1963). Career development: Choice and adjustment. New York: College Entrance Examination Board.
- Tinto, V. (1987). Leaving college: Rethinking the causes and cures of student attrition (2<sup>nd</sup> Ed). Chicago: University of Chicago Press.
- Townsend, B.K. (1995). Community college transfer students: A case study of survival. *Review of Higher Education*, 18, 175-193.
- Townsend, B.K., McNerny, N., & Arnold, A. (1993). Will this community college transfer student succeed? Factors affecting transfer student performance. *Journal of Research and Practice*, 17, 433-443.
- University of Kansas (2003, August). 2003-04 Tips for transfer students [Brochure]. Lawrence, KS: University of Kansas.



- University of Kansas (2002). 2002-2004 Undergraduate catalog. Lawrence, KS:  
University of Kansas.
- Upcraft, M.L. & Schuh, J.H. (1996). Assessment in student affairs: A guide for  
practitioners. San Francisco, CA: Jossey-Bass.
- Westbrook, B.W. (1985). Review of My Vocational Situation. In J.V. Mitchell (Ed.), The  
Ninth Mental Measurements Yearbook (pp. 1026-1027). Highland Park, NJ:  
Gryphon Press.
- Wijeyesinghe, C.L., Griffin, P., & Love, B. (1997). Racism curriculum design. In M.  
Adams, L.A. Bell, & P. Griffin (Eds) Teachings for diversity and social justice,  
pp. 82-109. New York, NY: Routledge.
- Williams, R. (1973). Transfer shock as seen from a student's point of view. *College and  
University*, 48, 320-321.